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I. THE FOCAL POINT OF THE UNITED NATIONS UNIVERSITY: GLOBAL CHANGE AND GLOBAL RESPONSIBILITIES - AN OVERVIEW

1. The year 1995 was one for solemn international commemoration of the 50 years that had elapsed since the end of the second World War and the launching of the United Nations as an expression of humanity's desire for an end to war. It also marked the twentieth anniversary of the United Nations University (UNU), the world organization's own unique academic arm. In the past two decades, the University has come to play a special role in promoting the United Nations goal of peace and progress. Embodied in the University's vision is the recognition that today's all-pervasive processes of transformation now under way must be a renewed sense of global stewardship.

2. The Council of the University held its forty-second session in Tokyo from 4 to 8 December 1995. Its deliberations focused primarily on these last few years of the University's journey into the next century. The Council examined the University's work in the final year of its second Medium-Term Perspective (MTP II-1990-1995) and reviewed the draft third Medium-Term Perspective (MTP III), which will cover the period 1996-2001. It also adopted the programme and budget for the University for the biennium for 1996-1997.

3. The second Medium-Term Perspective has operated under the broad rubric of "Global Change and Global Responsibilities". Guided by that perspective UNU academic work over the last six years has been carried out in five specific programme areas:

(a) Universal human values and global responsibilities;

(b) New directions for the world economy;

(c) Sustaining global life-support systems;

(d) Advances in science and technology;

(e) Population dynamics and human welfare.

4. The present annual report for 1995 provides a summary of the activities of the University within each of these programme areas. The document also highlights UNU efforts over the year in postgraduate training, institutional development and the dissemination of research findings. A new addition to the report is a summary of the University's work with other organizations and entities of the United Nations system during the reporting period.

5. As in the past, the purpose of the report is not to provide exhaustive, detailed coverage of academic work of the University, but rather to convey a sense of the diversity of its research, training and dissemination efforts. It aims thus at providing a consolidated view of the UNU work across a globally decentralized structure of scholarly and scientific institutions and individuals.

6. In 1995, four of the University's research and training centres (RTCs) were fully operational: the World Institute for Development Economics Research (UNU/WIDER) in Helsinki, Finland; the Institute for New Technologies (UNU/INTECH), at Maastricht, the Netherlands; the International Institute for

Software Technology (UNU/IIST) in Macau; and the Institute for Natural Resources in Africa (UNU/INRA), at Accra.

7. In addition to the above centres, the University in 1995 also established a new International Leadership Academy (UNU/ILA) at Amman, Jordan and continued its Programme for Biotechnology in Latin America and the Caribbean (UNU/BIOLAC) with headquarters at Caracas. A number of other cooperating institutions throughout the world were involved in UNU activities; they are cited below in the context of their specific roles within given UNU programme areas.

II. THE WORK OF THE UNIVERSITY: ISSUES AND CHALLENGES

A. Universal human values and global responsibilities

8. The world that has emerged in the aftermath of the long struggle of the cold war is fraught with new sorts of risks. New global issues, thrust to the fore by political, economic and ecological concerns, have necessitated a rethinking of human values - and their translation into everyday rights and duties. The instruments forged to cope with an East-West ideological clash are often proving hopelessly inadequate to our modern age.

9. This UNU programme area explores a number of essential issues in the unfolding international political scenario. There are four specific programmes:

(a) The United Nations System, global governance and security. This programme addresses the evolving role of the United Nations against the increasing demands for its services in peace-keeping and social development. These activities are primarily carried out by the UNU Centre in Tokyo;

(b) Conflict resolution and ethnicity. A diverse tangle of cultures and civilizations, often nursing ancient enmities, contend for space on the globe. The institutional research framework for this programme is provided by the International Programme on Conflict Resolution and Ethnicity (INCORE), a joint initiative with the University of Ulster in Northern Ireland, a land which has known some of the bitterest sectarian strife in recent years;

(c) Governance, State and society. The unrelenting demands of global interdependence require a broad new set of social acts of governance. The major focus of this programme during 1995 was on exploratory activities for a possible UNU research and training centre on the study of governance, to be located in Barcelona, Spain. Research work was also coordinated by the World Institute for Development Economics Research (UNU/WIDER) in Helsinki;

(d) Culture and development. The assertion of cultural identity, undergirded by respect for human dignity, has come to be seen as a fundamental driving force of equitable growth. The current work of the University on this important development consideration is implemented in cooperation with the Asian-Pacific Centre in Fukuoka City, Japan.

The United Nations System, global governance and security

10. In 1995, this programme, either jointly or independently, organized a number of conferences and symposia, generated policy-relevant publications and organized new research efforts.

11. In January, in cooperation with the International Peace Academy, the programme organized a high-level symposium in Tokyo for policy makers, academics and the general public on the latest developments in peace-keeping and humanitarian operations. The two-day symposium attracted wide media attention, featuring a televised round-table discussion involving Mr. Yasushi Akashi, Special Representative of the Secretary-General for the former Yugoslavia, and Mr. Hisashi Owada, Permanent Representative of Japan to the United Nations.

12. The symposium addressed theoretical justifications for the use of force and humanitarian intervention and made several practical policy recommendations on mission mandates, rapid reaction capabilities and training needs. A concise

report of the findings of the symposium was published and widely circulated to permanent missions to the United Nations, the international media and the larger academic community. An executive summary of the report, in French and Japanese, was also disseminated. An issue of UNU Work in Progress (vol. 14/2) drew on a number of the papers presented at the meeting.

13. The UNU project on multilateralism and the United Nations system, launched in 1990, has been studying the dynamics between the changing world order and new elements of international organization. The work of the project was completed in December at an international symposium held in San José, Costa Rica. The symposium addressed the multilateral context of development strategies, hunger, technology, ecosystems, human rights and security.

14. Two volumes 1/ emanating from this project were issued by UNU Press in 1995. The books explore the relationship between particular state/society complexes and the world order represented by institutions since 1945 and provide a unique source of information and analysis of the perceptions and policies of Member States towards the United Nations. Three other manuscripts based upon work of the project were in preparation at the end of the year.

15. As part of its project on peace-keeping, preventive diplomacy and reform of the United Nations, the University, together with La Trobe University and the Australian National University, organized a conference in Melbourne, Australia. The conference brought together prominent international scholars, senior United Nations and government officials, diplomats, and NGO representatives of non-governmental organizations (NGOs) to discuss three main themes: global security, institutional reform and regionalism.

16. With particular emphasis on the Asia-Pacific region, the conference dealt with such questions as the response of churches and other non-State entities to the security agenda of the United Nations, environmental problems, human rights in the region, and self-determination for indigenous peoples. It attracted wide coverage in the news media in Australia and will generate considerable public response in the form of books, journal articles and opinion/editorial ("op-ed") essays in the press.

17. UNU launched a major new research initiative on "The United Nations System in the Twenty-first Century" at a symposium held in Tokyo on 21 and 22 November 1995. The symposium was held in commemoration of the fiftieth anniversary of the United Nations and the twentieth anniversary of UNU, and was organized in cooperation with the Academic Council on the United Nations System and the International Cooperation and Research Association.

18. The objective of this six-year research project is to explore and suggest the most appropriate models for international organizations, especially the United Nations, that would best serve human needs in the twenty-first century. The first phase will evaluate the rationale and concepts behind the activities of international organizations. The project will also take stock of the capabilities of the United Nations and seek to diagnose problems that currently plague the system. The second phase of the project will combine these theoretical inquiries with empirical studies to produce workable future scenarios for international organization. Specific research topics will include: States and sovereignty; global citizenship; regionalism; and the role of international civil service.

19. The UNU Global Seminar series continued for its eleventh year. The seminars are designed to enhance international awareness among the student

population in Japan through active interaction with scholars and experts working in UNU's global networks. Two seminars were held in 1995, the first at Shonan International Village in Hayama, Kanagawa-ken, in early September and the second in Kobe in late September. The themes for the seminars were "The United Nations at 50: Building Peace", and "Global Society in Transition and United Nations Reform: Towards a Gentler and Safer World". In total, about 150 students from Japan and other countries participated in the four-day seminars.

Conflict resolution and ethnicity

20. The experiences and involvement of India, Ireland and Sweden in United Nations peace-keeping operations was the focus of a comparative study undertaken by UNU under the INCORE at the University of Ulster. The three nations were selected on the basis of their contrasting experiences in training and preparation for peace-keeping missions as well as the possible differences between their European and developing country perspectives. The three country studies are being complemented by comparative analyses of selected United Nations missions, interviews with key personnel in civilian and military peace-keeping as well as national policy makers; analyses of United Nations documentation and reports with a view to improving coordination between Headquarters and field commanders; and review of press reports to gauge public reaction to the way in which peace-keeping operations are conducted.

21. The project is expected to provide a set of recommendations on ways to improve the preparation and training of both civilian and military peace-keepers. Research activities are being carried out by teams from INCORE and the Irish Peace Institute of the University of Limerick and the Austrian Study Centre for Peace Research. A database of bibliographic materials and a press archive have been established at the Irish Peace Institute under this project.

22. Other INCORE activities were focused on developing and commissioning an ethnicity and conflict reduction network and included preparing a newsletter and building a database. A survey was also undertaken to determine user requirements for the database.

23. As another step towards improving understanding of conflict resolution, a country guide series was launched in 1995 on the perspectives and capabilities of troop-contributing countries in peace and humanitarian operations. The project is a cooperative venture with the United Nations Department of Peace-keeping Operations. The guide will involve preparation of country-specific reports, using workshops and symposia to ensure effective review and comparative analysis. Pilot studies on France, Japan and Korea were under way at year's end. The country reports will review current government policies, the political environment, the legal basis and decision-making processes as well as the financing and budgetary processes. The military, civil affairs, police and NGO capabilities and the modalities of involvement are other questions to be addressed in the reports.

24. In the UNU monograph series, scholars associated with International Alert and INCORE published four research papers during the year dealing with ethnicity and power in the contemporary world, building peace, peaceful and constructive resolution of situations involving minorities and conflict resolution in Northern Ireland.

25. As part of the preparation for the Asia-Pacific economic summit meeting held at Osaka, Japan in November 1995, UNU, together with the Council for Security Cooperation in the Asia Pacific and La Trobe University, Australia,

held a regional security workshop in Tokyo on 30 and 31 October 1995. The workshop entitled "Asia-Pacific Security at Century's End: National, Regional and Global Ramifications" formed part of the follow-up activities of the Commission on Global Governance. It brought together leading Asia-Pacific scholars involved in the so-called "two-track" or informal meetings of officials and academics from a dozen countries concerned with confidence- and security-building measures in the region. Major themes addressed were: the proliferation of weapons of mass destruction; arms build-up and force modernization; territorial disputes and the prospects for their resolution; the United Nations Register of Conventional Arms and regional compliance; and the future of the Association of South-East Asian Nations (ASEAN) Regional Forum and track-two forums.

Governance, State and society

26. Drawing on the resource base of scholars from the Catalan academic community and funded by the Directorate-General of Research of the Generalitat of Catalunya, Spain, UNU's explorations of governance issues progressed during the year. Two inter-university projects included participation by graduate students and representatives of government and civil society. Promising young faculty members participated in colloquia and workshops; occasional papers and articles are the expected initial outputs from the programme. The long-term objective of the activities is the establishment of a UNU research and training centre for the study of governance, headquartered in Barcelona.

27. Activities in Latin America continued to be the main thrust of the project on economic change and governance, which is being carried out in close collaboration with United Nations Development Programme (UNDP) and the Inter-American Development Bank. A conceptual paper containing three country studies was produced within the project and is being prepared for publication. These activities are likely to form the base for more UNDP-executed technical cooperation projects in the region for which UNU would be asked to serve as the academic and scholarly research base for such cooperation. There is now also a pending proposal, from a project workshop held in Barcelona in October on institutional development in the southern Mediterranean, to establish an inter-institutional information network with the University's Barcelona initiative as the network's centre.

28. Within the project on environmental governance, an inter-university study team was established during the year composed of law teachers from three universities in Barcelona and involving faculty from the natural and political sciences as well as selected postgraduate students. Three seminars were held in 1995 with the participation of graduate students, government representatives and others on a range of topics, including: policy priorities and law; environmental uncertainty and its legal implications; and the environment as a subject of law.

29. An in-depth case study of the project will focus on the island of Menorca in the Baleares as a representative case of a vulnerable ecosystem subject to conflicting environmental and economic interests. The island comes under pressures, for example, from often conflicting local regulations, European Union directives and global interests.

30. Yet another dimension to this programme is being provided by a UNU/WIDER project entitled "New Regionalism and the International System: Implications for Development and Security", launched last year. Its efforts in 1995 clearly demonstrated the direct policy relevance of UNU/WIDER's work to current world

problems. One project workshop, for example, brought together politicians, researchers and dignitaries from Israel, Jordan and the Palestinian Authority to discuss the importance of dialogue in the continuing Middle East peace process. The workshop was organized in collaboration with the Peace and Development Research Institute of Gothenburg University (PADRIGU), Sweden, the Harry S. Truman Research Institute for the Advancement of Peace, the Hebrew University of Jerusalem and DATA Studies and Consultation, Bethlehem, Israel.

31. The third stage of this UNU/WIDER project focuses on long-term development, ecological sustainability and regional conflict resolution; a workshop to initiate research activities was held in Kathmandu, in mid-November. A major volume on "Globalism and Regionalism" will be published by Macmillan and several state-of-the-art reports are being prepared for publication in the UNU/WIDER publication series, "World Development Studies".

Culture and development

32. A joint Symposium on Science and Culture was organized by UNU and United Nations Educational, Scientific and Cultural Organization (UNESCO), in cooperation with the Government of Japan. The keynote addresses were given by Kenzaburo Oe, Nobel laureate in Literature, and Jacques-Yves Cousteau. The symposium's goal was to identify a comprehensive and interdisciplinary strategy in science and culture.

33. A declaration after the symposium addressed the problem of bridging the perceived gulf between hard science and culture and tradition. What is needed, it urged, is a greater notion of wholeness, a concept which permeates both the diversity theories of quantum physics and the holism in Eastern religions and philosophy. Such a melding of science and resurgent tradition might fruitfully undergird efforts to attain perpetual peace.

34. Research continued in the comparative study at the Asian-Pacific Centre in Fukuoka City, Japan, on views of environment in Asian countries. A third cultural exchange workshop, attended by Japanese and other Asian scholars, was held in November. Six papers were presented on Asian views on the environment, which examined environmental issues across a wide range of perspectives, from gastronomy to water problems to religion.

B. New directions for the world economy

35. Sustainable economic growth must entail enlisting the full capabilities and energies of human society. Seen in this light, development is a wondrous and intricate tapestry, woven of the hopes and fears, and the values and beliefs that so richly endow the human endeavour. Social and economic well-being are mutually reinforcing; this is evident in the intimate interlinkages between human action and the biosphere. Expenditures on human capabilities can be as high-yielding, in the long run, as any investments in highways, factories or other items of industrial infrastructure.

36. The central aim of the University's studies of the global economy is to improve understanding of the many underlying complexities of the world's trade in goods and services. This has key implications for the future well-being of the developing countries. UNU activities in this are primarily located at UNU/WIDER, the UNU research and training centre for development economics in Helsinki.

37. A distinctive feature of the work of this centre is its recognition that the shaping of international economic policy cannot be the business of economists alone. The efforts of UNU/WIDER bring multidisciplinary, multinational perspectives to economic problems by scholars from many parts of the world. Other important input to this programme area is being provided by work at UNU/INTECH, the UNU research and training centre for study of new technologies in Maastricht, the Netherlands, and at the Tokyo Centre.

38. Activities in this area fall under three programmes:

(a) Growth and sustainable development: evolving global, regional and national structures and mechanisms. The work in this programme focuses on new forces, e.g., globalization, foreign investments and currency uncertainties, which are bedeviling emerging markets in the developing world and impairing equitable growth;

(b) The socio-economic dimensions of development: employment, equity and gender issues. The concern here is with the ultimate focus of economic growth - human development. It touches on issues of education, health, nutrition and the role of women in development;

(c) Global change and perspectives. Two important components of the current global transformation are sharply changing patterns of arms spending and the increased impact of human activities on the environment Both have enormous international economic implications.

Growth and sustainable development: evolving global, regional and national structures and mechanisms

39. Research in this programme has been directed at the impact of evolving international structures and mechanisms, in finance, trade, technology and other areas, on growth in the three major areas of the developing world. Attention is also devoted to economic transformation in the nations of the former Soviet bloc.

40. In Latin America, the focus has been on how the continent's economies are weathering the forces of globalization. Research in this area was organized by UNU/WIDER and was completed in April 1995. The subject was particularly timely in the light of the liquidity crisis in Mexico and the economic repercussions elsewhere in Latin America during the reporting period. Events underscored the limited capabilities of the countries of the region to withstand the adverse consequences of globalization. The UNU/WIDER study first examined different perspectives on the question held by major schools of thought within the Latin American academic community. It then traced the impact of outside flows of capital, trade and technology on Latin American cultures. The research findings have already led to one key researcher being invited to provide policy advice and recommendations to a Government in the region. The first part of the study will be published within the UNU/WIDER "World Development Studies" series.

41. In Asia, research centred on rural economies and the impact of new liberalization policies. The study focused on rural producers in Bangladesh, India, Nepal and Sri Lanka, examining the changes in local markets and rural production since the initiation of the liberalizing programmes. Four researchers were selected to prepare specific country studies, which were then reviewed at a two-day workshop held at New Delhi, in October 1995. Scholars from throughout the South Asian region participated in the workshop and final drafts of the studies were expected by the end of the year.

42. In Africa, research organized by UNU/WIDER has been directed at helping to move the continent, and its resource-based developing economies, from a reluctant adjustment course to a more sustained growth path. A UNU/WIDER project entitled "Resource Mobilization and Sustainable Growth in Africa" was completed by the end of 1995. Work by a research team at the Helsinki-based institute was essentially devoted to preparing manuscripts and articles for publication. These included a booklet entitled "International Economic Policy and Trade in Africa" to be published by UNDP; a chapter, "Efficacy of Structural Adjustment Policies in Africa", for the volume Challenges of African Development: Structural Adjustment and Implementation and a UNU/WIDER "Research for Action Series" publication, "Impacts of Africa's Growing Debt on its Growth". Two UNU/WIDER working papers were also completed during the year, and the manuscript for the volume, Mobilization of the Endowed Resources to Achieve a Sustainable Path of Growth in Africa, is in press.

43. In its continuing attention to the immense social and economic changes in Eastern and Central Europe, UNU/WIDER is analysing and summarizing the social policy aspects of the frequently painful transitions of those nations to a market economy. The study entitled "Social Determinants and Consequences of Transition to the New Market Economies of the 1990s: Employment, Poverty, Equity, Demographic Development and Gender Issues", includes comparative analyses of the social policy implications, recent trends in social development and social conflicts, and the consequences in employment and income policy and demographic development. Three reports on the study have been published to date in the UNU/WIDER "World Development Studies" series: (a) "Emerging Labour Markets - Labour Market Developments and Transitional Unemployment in Central and Eastern European Countries"; (b) "Income Policy in Central and Eastern Europe in the Transition Period"; and (c) "Demographic Development of the Central and Eastern European Region". The project is expected to be completed by the end of January 1996. The summary volume, The Social Determinants and Consequences of Transition in Central and Eastern Europe: Policy Implications is currently at the manuscript stage.

44. Another UNU/WIDER project, "Evolving New Market Economies in Europe and Asia", analyses the sources and consequences of the successes and failures experienced by the evolving new market economies in both Europe and Asia. Research has focused on the regional and global implications of domestic change in these regions as well as the internal and external interactions. Two policy-oriented volumes are in preparation. The first will deal with country-specific findings, highlighting the special features which enabled some countries to make adjustments with less difficulty than others and, in the process, diversify their trading patterns, remove trade restrictions and stabilize their currencies. The second volume will summarize the issues of system changes, expectations and outcomes, the political economy of past errors, future-oriented historical lessons and the role of international agencies.

45. "Integration of China in the World Economy" is the topic of a recently completed UNU/WIDER project which examines the internal and external conditions of economic reforms, their economic and social consequences and the impact of China's recent integration in the regional and global economy. The final manuscript containing the research findings is now being edited for publication.

46. At the broader international level, the High-level Group on Development Strategy and Management of the Market Economy held its third meeting at Helsinki in July. The Group was established by the Department of Economic and Social Information and Policy Analysis of the United Nations Secretariat to assist the work of the Department in macroeconomic issues. A UNU/WIDER research adviser

chaired the meeting. The previous two meetings had been held with UNU/WIDER involvement in New York in 1994 and in Laxenburg, Austria, in April 1995. The research papers from the meetings will be published in book form.

47. The principles of overseas development aid and the need for its redirection were discussed at a November meeting at Helsinki jointly organized by UNU/WIDER and the University Centre. Participants attended from: European Centre for Development Policy Management, the Netherlands; Institute of South-east Asian Studies, Singapore; Institute of World Economy and International Relations, Russian Federation; Overseas Development Institute, United Kingdom of Great Britain and Northern Ireland; Budapest University of Economics; Ministry of Agriculture and Livestock Development, United Republic of Tanzania; Seikei University, Japan; Organisation for Economic Cooperation and Development (OECD) and UNDP. The meeting analysed papers addressing the principles of official development assistance (ODA) and offered suggestions on the reorientation of international development cooperation from the perspective of both donor and recipient countries/regions.

48. A second volume 2/ emanating from the study entitled "Trade and Industrialization Reconsidered", a project of the UNU/WIDER external networks, was published during the year. The book, with five country case studies, examines problems in manufacturing for export in the developing countries.

49. One of the main vehicles for international economic integration is direct foreign investment by transnational corporations. A UNU/WIDER study has focused on the re-evaluation of the role of transnational corporations as engines of growth and integration. Seeking a broader development perspective, the study assesses the extent to which the interests of the transnationals coincide, and where they conflict with those of the national and regional economies in which they operate. A research conference was held in late September to review 13 papers prepared within the project. The findings are expected to be ready for publication in April 1996.

Socio-economic dimensions of development: employment, equity and gender issues

50. The changing employment patterns and the structure of unemployment in African economies form the base of an ongoing UNU/WIDER effort. The project takes a policy-oriented approach in examining changing employment patterns by sector, occupation, age and gender. It has also considered the subject in terms of relevant dichotomies, e.g., formal versus informal, self-employment versus wage employment, private-sector versus public-sector employment, and includes an analysis of labour market legislation and organization.

51. Thirteen studies of sub-Saharan African countries have been commissioned. Research is expected to reveal new information on the role of the informal sector in employment creation, the structure and role of labour market institutions in Africa and the role of small enterprises in the labour market. A joint UNU/WIDER-UNU/INRA Workshop on Changing Employment Patterns and the Structure of Unemployment in Africa was held at Accra in July. The Employment and Development Department of the International Labour Organization (ILO) collaborated in the organization of the meeting. Research findings from this project also contributed to a UNU/WIDER Conference on Human Settlements held in August 1995.

52. UNU/WIDER served as the focal point for the UNU research contribution to the World Summit for Social Development, held at Copenhagen in March. The proceedings of the Conference on the Politics and Economics of Global

Employment, held at Helsinki in June 1994, were compiled in a two-volume work entitled Global Employment: An International Investigation into the Future of Work. 3/ The first volume was delivered to each national delegation at the Copenhagen Conference; an official launching ceremony for the new book was attended by President Martti Ahtisaari of Finland, President Arped Göncz of Hungary, Percival Patterson, Prime Minister of Jamaica, and Paulo Renato Costa Souza, Minister of Education of Brazil.

53. During the year, UNU continued its important focus on issues related to women and development. A delegation led by the Rector and comprising researchers and staff from UNU/WIDER and UNU/INTECH participated in the Fourth World Conference on Women, held at Beijing in early September. A new UNU/INTECH volume, Women Encounter Technology, 4/ was presented at the Conference's governmental forum.

54. UNU/INTECH's project, "Monitoring the Impact of New Technologies on Women's Industrial Work in Asia", continued to assemble information on the impacts of new technologies on employment and entrepreneurial opportunities for women in nine countries chosen to reflect the economic and market diversity of the Asia-Pacific region. The project, conducted jointly with the United Nations Development Fund for Women (UNIFEM), is partially funded by the Ministry of Development Cooperation of the Netherlands.

55. A project workshop on "Industrial Policies for the Twenty-first Century: New Technology and Women's Work" was held at New Delhi in late March. Among the participants were 17 senior civil servants from eight Asian countries. Seven individual country workshops were also organized during the year, in Bangladesh, China, India, Indonesia, the Republic of Korea, Malaysia and Sri Lanka. A policy-oriented dialogue meeting between NGOs and government bodies is planned for April 1996 in collaboration with the Economic and Social Commission for Asia and the Pacific (ESCAP) and UNIFEM. The principal researcher in the project addressed the plenary session of the NGO Forum at the Beijing Conference, and a workshop on "Technological Change and Women's Work in Asia" was also organized by project leaders at the NGO Forum. The principal researcher was recently appointed Chairperson of the Gender Advisory Panel of the United Nations Commission on Science and Technology for Development.

56. Efforts continued during the year under a UNU/WIDER project studying the effects of economic restructuring on women's employment, including structural adjustment, privatization, the transition to a market economy and the shift to an export orientation. The project is also exploring questions of social services and policies and labour legislation relating to women, work and family. The final manuscript for the research findings is expected to be completed in early 1996.

Global change and perspectives

57. The ongoing transformation of the global military sector, largely as a result of the ending of the East-West ideological clash, has been the focus of a continuing effort by UNU/WIDER. The project examines both the supply and demand sides of security requirements. Research efforts will lead to a set of recommendations to international institutions about how the restructuring process might be managed with a minimum of fragmentation and violence. Two volumes have resulted from the project; the manuscripts were completed by the end of the year.

58. "Global Change and Modelling", a project begun in 1991, involves a network of institutions cooperating in an effort to improve understanding of the complex, dynamic and often non-linear systems underlying global change. Efforts in this area are closely linked with the work on eco-restructuring (under programme area 3). It seeks to generate information to build alternative plausible scenarios for the twenty-first century that take into account new and complicated questions of energy use, resource demands, population growth and production configurations.

59. A major UNU Conference on the Sustainable Future of the Global System was held at the UNU Tokyo headquarters in October 1995. The meeting was a follow-up to an April workshop at the Institute of Applied Systems Analysis in Laxenburg, Austria. A special focus of this global modelling is the Asia-Pacific region.

C. Sustaining global life-support systems

60. Of all the dangers on the road to the twenty-first century, the most threatening could be our own species - in the myriad daily human acts which are threatening the thin band of earth, sea and sky we call the biosphere. On an increasing scale, human activity is disrupting the systems that support all life on our planet.

61. While the environment has been a concern of UNU since its establishment 20 years ago, its special focus in recent years has been on sustainable development: growth that meets the needs of the present while recognizing those of the future. The University's accumulated experience is being put to use in helping implement Agenda 21, the far-reaching set of development marching orders that emerged from the deliberations of the United Nations Conference on Environment and Development (UNCED), held at Rio de Janeiro in June 1992.

62. UNU's work on life-support systems is organized within five programmes:

(a) Eco-restructuring for sustainable development. Sustainable development calls for a major shift in international consumer patterns. This programme seeks to generate necessary new knowledge in environment, engineering, economics and energy use essential for managing such a transformation. Activities are based at the UNU Tokyo headquarters and are implemented in close cooperation with UNU/WIDER in Finland and UNU/INTECH in the Netherlands;

(b) Integrated studies of ecosystems. This programme examines sustainable development from the perspective of the carrying capacity of ecosystems and their ability to support, resist or recuperate from long-term impacts and transformations. Ongoing projects are coordinated by the UNU Centre;

(c) Information systems for environmental management. The concern here is with developing the intellectual tools for sound environmental management and strengthening human capacities to achieve it. Programme activities are carried out primarily from the Tokyo Centre;

(d) Natural resources in Africa. In this programme the United Nations University Institute for Natural Resources in Africa (UNU/INRA) addresses the continent's urgent needs for human resources development and institutional capacity-building in order to achieve more effective conservation, management and rational utilization of natural resources for sustainable development. UNU/INRA is headquartered on the Legon campus of the University of Ghana, Accra,

with a Mineral Resources Unit sited in the School of Mines at the University of Zambia in Lusaka;

(e) Environmental law and governance. This programme seeks to take into account a whole new range of thorny international legal dilemmas which must be dealt with in more rational governance of the environment. Activities are currently carried out primarily at the Tokyo Centre, but are closely linked with academic work in the Study of Governance initiative in Barcelona.

Eco-restructuring for sustainable development

63. UNU activities in this area during the year were focused on extending the understanding of the new notion of "industrial metabolism". The concept, which was developed during earlier University work on the human dimensions of global change, refers to the physical processes that convert raw materials and energy into finished products.

64. Analysis of the conditions for successful governance related to the environment in 14 developed and developing countries has been the focus of a UNU/WIDER project on "National Environmental Policies: A Comparative Study of Capacity-building". The first phase of research involved compilation of information on the case studies in Chile, China, Denmark, Germany, Japan, Latvia, the Netherlands, Nigeria, the Republic of Korea, the Russian Federation, Sweden, Switzerland, the United Kingdom and the United States of America. A second phase of research reviewed the case studies at a workshop held at the Science Centre Berlin in early May, leading towards the completion of activities by the end of the year.

65. Structural transformations in both industrialized and developing countries over the past 25 years have resulted in the formation of a new pattern of international division of labour. Relocation of the manufacturing sector has become particularly evident in the Asia-Pacific region where ASEAN countries and China are following in the footsteps of the newly industrializing economies in Asia. This is likely to result in increased energy consumption by these countries coupled with water and air pollution and other environmental problems. UNU is seeking to measure the environmental impacts of industrialization and trade expansion in Asia, to assess the varying policy linkages between the environment and trade and industrialization and propose possible policy remedies with respect to economic and technological cooperation between developing and industrialized countries. Project activities began in late September and are expected to be carried out at the UNU Institute of Advanced Studies (UNU/IAS) in 1996.

66. Closely linked to these activities is a UNU project on "Sustainable Global Future: Scenario Building for the 21st Century" described above in the programme on global change and modelling. The UNU Conference on the Sustainable Future of the Global System, held at Tokyo from 16 to 18 October 1995 in cooperation with the National Institute of Environmental Studies, Japan, and sponsored by the Environment Agency of Japan and the United Nations Commission on Sustainable Development, constituted the first step in an ongoing effort by the UNU Institute of Advanced Studies (UNU/IAS) to search for a better articulation of the meaning of sustainable development and determine what problems sustainable development presents to the international community and how those problems might be addressed. Presentations were given on medium- and long-term future global scenarios of the environmental impacts of economic development as well as scenarios of sustainable development in the context of global resource constraints.

67. UNU is also seeking to understand the situation of different categories of households in different countries, their present structure and the nature of the major structural changes to which they are exposed and alternative ways of dealing with these changes through a project on "Post-market Approaches to Ecological Economic Development". A case study of Indonesia will indicate the degree to which an approach using input-output economics and social accounting matrices will be suited for analysing different development scenarios. The project will also describe the requirements for an improved household classification scheme.

68. A pilot project was initiated by UNU/INTECH in 1994 to examine the legal framework for environmental control in a developing country and to examine the effectiveness of enforcement of environmental law. The project followed up on an April 1994 Workshop on the Transfer of Environmentally Sustainable Technology, financed by the Ministry of Development Cooperation of the Netherlands. The pilot project involved field research in Mexico aimed at determining how local and foreign firm's technological decisions were influenced by the legal framework for environmental protection in Mexico. A second study to examine behaviour at the level of the firm in a less industrially developed country has been carried out in the United Republic of Tanzania. The pilot studies have led to the preparation of a proposal for a three-year project on "Environmental Regulation, Globalization of Production and Technological Change." The European Commission has accepted the proposal and project activities will analyse the impact of environmental regulation on the technology and competitiveness of European Union industry, particularly in relation to newly industrializing and less developed countries, and the way in which they are reflected in the pattern of trade, investment and employment.

69. UNU continued efforts during 1995 to develop curricula and training programmes to strengthen capacity-building in developing countries in the field of eco-structuring for sustainable development. UNU and the Asian Institute of Technology (AIT) organized a training course on planning for sustainable development in the Asia-Pacific region from 17 July to 4 August 1995 at AIT in Bangkok. UNU provided 12 full fellowships for the training course, and an additional 12 fellowships were supported by the Governments of Australia and New Zealand and by UNDP in the Philippines. A similar course was initiated in 1995 at the Tata Energy Research Institute in New Delhi. Other training links have been developed with Keio University in Japan.

70. Closely related to the improvement of industrial efficiency is the UNU project on minimizing emissions, known by the acronym ZERI (for Zero Emissions Research Initiative). In April 1995, the University organized the first World Congress on Zero Emissions. The Congress brought together business leaders, scientists and policy makers to discuss the efficacy of the zero emissions standard and to learn more about the UNU initiative.

71. The meeting was conducted simultaneously at sites in Asia, Europe and the United States via video connection on the Internet. Mr. Ingvar Carlsson, Prime Minister of Sweden, and Dr. Federico Mayor, Director-General of UNESCO, made live video interventions via the Internet. Special efforts have been made during the year to set up electronic networks using the Internet to support UNU/ZERI. The most active network is the Integrated Biosystems Network, which has some 210 experts participating electronically.

72. The Congress was also the location for the launching of a new UNU book, Steering Business towards Sustainability. 5/ The UNU/ZERI project is preparing

for the Second UNU World Congress on Zero Emissions, to be held in Chattanooga, Tennessee, United States, in May 1996.

73. A member of the Royal Swedish Academy of Sciences was appointed by the Rector as chair of the UNU/ZERI Scientific Advisory Committee. In its review, the Committee concluded that "ZERI is not only feasible, it is essential". During the year, two feasibility studies related to key aspects of the project were prepared. The Centre for the Integrated Survey of Natural Resources, in China, was commissioned to undertake a study on integrated biosystems for agro-industrial waste. The study concluded that a two-year research project was needed to conduct pilot studies in China, Colombia, Fiji, Namibia and the United Republic of Tanzania. A second study on materials separation technologies was undertaken based on a document on "steam explosion" prepared at the Institute for Wood Chemistry of the Latvian Academy of Sciences. The Oak Ridge National Laboratories, United States, together with the Institute of Technology, Bandung, Indonesia, and the Brazilian National Science Council, are expected to formulate specific project activities to be undertaken in 1996.

74. One additional UNU/ZERI feasibility study on colour use without colour pigments will be initiated in 1996. The subject area is one under consideration as part of a ZERI attempt to identify potential uses for technologies taken directly from nature, e.g., the reflected colours from bird plumage.

Integrated studies of ecosystems

75. UNU work related to disaster-prone regions and disaster reduction was interrupted dramatically by the Great Hanshin earthquake which occurred just as a workshop on urban earthquake mitigation was being organized in Osaka on the morning of 17 January 1995. During the year, activities within the project were consolidated leading towards the establishment of the Global Network on Natural Disaster Risk Management (GLO-DISNET) jointly with Stanford University, the International Centre for Disaster-Mitigation Engineering (INCEDE) of the University of Tokyo and the World Seismic Safety Initiative (WSSI). The network will facilitate the exchange of information on research and training activities as well as direct experiences in disaster risk management and mitigation among researchers and disaster managers. Emphasis is being placed on the inclusion of developing countries in the network. For this purpose, a task force session was organized in connection with the Pacific Science Congress held at Beijing, in June 1995. The meeting on "Harnessing the Communication Revolution: Towards a Global Disaster Network" was instrumental in broadening knowledge of GLO-DISNET and in ensuring coordination with other initiatives in the field. A GLO-DISNET home page with extensive information and data links has been established on the World Wide Web (http://blume.stanford.edu:8080/). Other more traditional means of dissemination are also being included to ensure that participants from developing countries are also able to have access to the information.

76. UNU organized several workshops or seminars on topics relevant to the project in 1995. In March, an International Symposium on Small Islands and Sustainable Development included a discussion of the vulnerability of small island States to natural disasters. In May, UNU cooperated with the Nanyan Technological University, the Singapore College of Insurance and WSSI in organizing a Workshop on Catastrophic Risk Management for the Insurance and Reinsurance Industries in Singapore. In September, UNU organized a Workshop on Urban Earthquake Risk Management: Preparing for the Big One in Tokyo with participation by leading experts from Japan and abroad in earthquake engineering and disaster management and officials from city governments in the capital region and from utility companies. The objective was to discuss what would

happen if a major earthquake hit the Tokyo metropolitan area. In addition to workshops, dissemination efforts have included a volume entitled The Long Road Back: Community Recovery from Industrial Disasters, edited by James K. Mitchell of Rutgers University, United States, to be published by UNU Press. Editing is nearing completion on a manuscript emanating from the 1994 UNU workshop on "Natural Disasters in Mega-cities".

77. A UNU project on "Management of International Waters" seeks to promote the sustainable management of bodies of water that fall within the jurisdiction of more than one country. This would require not only environmentally and technologically sound management options, but also careful analysis of historical, political, economic, social and legal issues. UNU, as an autonomous academic organization, facilitates dialogue between policy makers based on sound scientific principles. Project activities focused on two main international forums. The Asian Water Forum was organized together with the International Water Resources Association and the United Nations Environment Programme (UNEP) at AIT in January and February 1995. The forum focused on management issues of three major river basins in Asia: the Mekong, the Salween and the Ganges-Brahmaputra. As a follow-up to the forum, UNU is planning to undertake a study of the Salween river system with a view to studying the possibilities of establishing a "Salween committee" along the lines of the Mekong Committee.

78. The University's Central Eurasian Water Forum on Aral, Caspian and Dead Sea Water Crises and Perspectives was organized in March 1995 in Tokyo and Shiga, Japan, in collaboration with the Japan International Cooperation Agency, UNDP and the International Lake Environment Committee Foundation. The objective was to study the hydro-politics and eco-political decision-making process around the three main inland seas in Eurasia and their related environmental problems. In October, the UNU hosted the UNESCO/International Hydrology Programme Symposium on Rivers and People in South-East Asia and the Pacific: Partnership for the Twenty-first Century. During the symposium, a "Catalogue of Rivers of South-East Asia and the Pacific" was launched and efforts were made to design an international project in river hydrology in the region. Two books 6/ related to UNU work in this area were published in 1995.

79. The project on "Mountain Ecology and Sustainable Development" continued to contribute to the policy-making process of the United Nations system related to the sustainable development of mountain and highland areas. Within the United Nations inter-agency group for the follow-up of UNCED Agenda 21, chapter 13, "Managing fragile ecosystems: sustainable mountain development", 7/ UNU cooperated with the Food and Agriculture Organization of the United Nations (FAO), the United Nations Task Manager and other participating agencies and NGOs. In the process, UNU was assigned to take the lead role in research into issues pertaining to the sustainable development of mountains. UNU also participated in the second inter-agency coordinating meeting hosted by the International Potato Centre, held at Lima, in February 1995, and in the follow-up NGO consultative meeting. The UNU project coordinator was invited to make a presentation to the United Nations Commission on Sustainable Development, demonstrating the recognition given to UNU in this area.

80. The main research activities during the year were focused on Asia. A project on floods in Bangladesh continued with the active participation of scholars from Bangladesh and India. This effort is aimed at questioning the conventional wisdom that recurrent floods are a consequence of erosion and deforestation in the Himalayas. The project also has a strong capacity-building component involving the training of local graduate students. A project, supported by the Ford Foundation, on the impact of development on socio-economic

conditions and environment in minority-populated areas of north-west Yunnan, China, is being implemented by UNU and the Yunnan Academy of Social Sciences. The second Andean Mountain meeting was organized at La Paz and Huarinilla, Bolivia, in April jointly with the International Mountain Society, the International Union for Conservation of Nature and Natural Resources (IUCN) and UNESCO. The theme of the meeting, which was "Sustainable Mountain Development: Managing Fragile Ecosystems in the Andes", focused on the potential for creating a corridor of protected areas across the Andes. UNU continued to support the publication of the journal Mountain Research and Development as an important forum for the publication of scientific articles on issues pertaining to ecology and social and economic development in mountain and highland areas.

81. A joint initiative of UNU, UNESCO and the Third World Academy of Sciences, the South-South Cooperation Programme for Environmentally Sound Socio-Economic Development in the Humid Tropics, was established in 1992 following UNCED. The lead agency for the project is UNESCO and UNU's inputs are mainly within the context of the population, land management and environmental change (PLEC) initiative (see paras. 135-140 below) and UNU/INRA. Activities have been funded through the UNU-UNESCO Collaborative Study Programme with funds-in-trust from the Japanese Ministry of Education, Science and Culture. In January 1995, the second steering committee meeting was organized at the Mananara-Nord biosphere reserve in Madagascar. The objective of the meeting was to review status reports on biosphere reserves in Africa, Asia and Latin America and the Caribbean and to plan future collaborative research and exchange activities.

82. Analysis of forestry resources utilization in both developed and developing countries has been the focus of a UNU/WIDER study on "The Forest in the South and the North: Transition from Deforestation to Sustainable Forest Policies in Redressing Global Warming". Activities of the project, which started in June 1994, have been devoted to the examination of country-level causal analyses and deforestation rates in 90 tropical countries with respect to independent variables causing deforestation. Other activities have concentrated on an econometric analysis of deforestation in the Brazilian Amazon. Progress has been made in specifying and estimating the model of the dynamics of Amazon deforestation as well as the consequences of deforestation for carbon dioxide emissions. The final results of the project, which is being conducted by the Finnish Forestry Research Institute, the European Forest Institute and the Instituto de Pesquisa Económica Aplicada, Brazil, are expected in mid-1996.

Information systems for environmental management

83. The UNU project on "Environmental Impact Assessment (EIA) Methodologies" reached its final test and reporting phase during the year. The objective of the project is to produce a textbook on EIA methodologies that can be used for training developing-country professionals involved in the preparation of EIA of development projects.

84. Following on activities in 1994, UNU has begun to implement a set of activities within a major project on "Environmental Monitoring and Analysis in the East Asian Region: Technology Transfer and Environmental Governance". The three-year research, training and dissemination project will involve some 80 scientists from nine countries in the East Asian region. Training of scientists from the region in analysis and in the generation of standard reference materials will be a first step. A major objective of the project is to promote calibrated techniques and methodologies in the region to produce reliable data for further interpretation. Scientists will analyse pollutants in rice and grain foods, soils and industrial wastes, fish, water (synthetic), sediment and

atmospheric pollution. The project will include the use of specialized equipment to assist in calibration and knowledge and technology transfer and is being supported by the UNEP Regional Coordinating Unit for the East Asian Seas Action Plan and has received financial support from the Japanese private sector through the Japan Foundation for the United Nations University. UNU completed the project implementation report for a UNU-UNESCO/IOC-UNEP project on Asia-Pacific mussel watch. The report presents the conclusions of a planning workshop for the Asia-Pacific mussel watch held in November 1994 and includes the implementation plan for the project.

85. In March, UNU organized an International Symposium on Small Islands and Sustainable Development. UNU held a one-day planning meeting prior to the meeting to provide inputs for its Small Island Network, which is seen as a means to link UNU research and scholars in issues related to small islands. During the year, utilizing electronic media, UNU has developed a substantial membership of interested academics and researchers and has held a number of electronic seminars. A home page called "Island Gateway" was launched on 1 December to share research findings and to link organizations and networks associated with or active in small island related issues.

86. The Fourth UNU Environmental Forum was organized in May on the topic "Population, Land Management and Environmental Change". Originally planned for January but postponed owing to, the great Hanshin earthquake, the meeting was based on research carried out under the UNU PLEC initiative. In addition to conceptual papers on land management and biodiversity in agricultural areas, the participation of farmers and the role of women, case studies were presented focusing on northern Thailand, Papua New Guinea and the Brazilian Amazon. The Forum was organized in cooperation with the UNEP International Environmental Technology Centre, with support from the private sector in Japan.

Natural Resources in Africa

87. The activities of the UNU Institute for Natural Resources in Africa during 1995 were primarily devoted to project formulation and feasibility studies on key aspects of the future work of the Institute. A major preoccupation of the Institute has been the completion and extension of the field survey phase of its earlier work. The field surveys have been prepared on water, mineral and plant resources and indigenous African food crops. Feasibility studies on a possible reference pedological facility for soil, plant and water as well as a reference herbarium tissue culture and germ-plasm conservation facility were started in 1995. The two facilities will be developed for research and will serve UNU/INRA collaborators as locations for analysis as well as for use by visiting scientists and members of the UNU/INRA College of Research Associates. Project proposals on land degradation monitoring and environmental resources inventorying and integrated watershed research, development and demonstration were completed in December 1995. These studies and proposals will form the basis for fund-raising initiatives in early 1996.

88. Preparations are under way to publish nine additional field surveys, with 14 other surveys still in various stages of editing or revision prior to publication. Summaries of all 43 field surveys commissioned by UNU/INRA will be completed in 1996.

89. In June, UNU/INRA formally commissioned the UNU/INRA computer workstation of the mineral resources unit at the University of Zambia, Lusaka. The facilities include computers and accessories, geological mapping equipment, image processing software and audiovisual equipment. The workstation will form

an integral part of the work of the unit. The purchase of the equipment for the workstation was made possible by a grant from the OPEC Fund.

90. Although training courses originally planned by UNU/INRA were postponed during the year, progress was made in the preparation of training materials for indigenous African good crops and useful plants. A workshop utilizing these materials is expected to take place in early 1996.

Environmental Law and Governance

91. Important but unsettled international legal issues frequently arise in the environmental arena, e.g., ecological threats that transcend national boundaries. UNU is attempting to meet an educational need in this area by organizing courses in various parts of the world. A Global Faculty Training Workshop was organized in Barcelona in July. The workshop trained young university law faculty members in the teaching of international environmental law. Eighteen professors, associate professors and lecturers from 16 countries met with training faculty of professors, legal advisors and United Nations officials. A UNU Teacher Package was produced, comprising prepared lecture notes, modules, reference materials, textbooks and a guide on teaching methodologies. It is hoped that participants will use the UNU materials in teaching international environmental law at their home institutions. A videotape of the workshop is also available for use by university faculty as a teaching tool.

92. The workshop helped to strengthen the global network in the field, and UNU plans to organize several regional workshops and, where appropriate, national workshops to support the "training of trainers" multiplier effect. Where possible, participants from the global workshop will be invited to participate as resource persons in the regional workshops.

93. In early December, UNU organized an East Asian Faculty Training Workshop on International Environmental Law as the first follow-up to the Barcelona workshop. The Teacher Package concept was employed in focusing on issues affecting the East Asian region. Fourteen university faculty members from 10 countries in the region, as well as a distinguished teaching core, participated in the workshop.

94. UNU also provided expertise for a UNEP/United Nations Institute for Training and Research (UNITAR) Training Workshop on Environmental Law and Policy, and participated in the UNEP/IUCN meeting of legal experts on the teaching of environmental law. Other activities involved possible first steps to implementing a UNU/UNEP joint project, establishing a Master of Laws course in environmental law at the University of Colombo, Sri Lanka. The Rector and the Executive Director of UNEP exchanged letters in 1995 in which they agreed to promote further collaboration in the field of training in environmental law, research related to its implementation and compliance with environmental accords. The cooperative effort will also support academic institutions in this field in the developing world.

D. Advances in science and technology

95. Modern technology holds out bright promise for the poor and hungry of the global society; it has enormous capacity to inform and to improve the human condition. The reach of technology extends into the daily lives and the cultures of societies everywhere. But advances along the information

superhighway have a way of either bypassing developing societies or imposing on them something totally inappropriate to their needs or cultural mores.

96. The work of UNU in this area is directly concerned with the impact of science and technology on development and its potentials to bring about sustainable and viable growth processes. The activities fall under four programmes:

(a) Socio-economic implications of new technologies. From the miller's stone to the microchip, technologies have been embedded in social history. Work in this programme examines the political and socio-economic impacts of new technologies and of national technology policies. UNU's efforts in this area in 1995 were carried out by UNU/INTECH in Maastricht, Netherlands;

(b) Applications of biotechnology for development. This programme consists of a regionally focused set of activities aimed at building capacities in developing countries to harness the potential of biotechnology for producing food of sufficient quality and quantity, for providing inexpensive and sustainable sources of energy and for improving human health and overall quality of life. UNU/BIOLAC in Caracas, coordinates activities within this programme;

(c) Software technology for developing countries. Computer software directed at problems such as flood control is the sort of "eco-technology" needed in sustainable development. Precisely this sort of modern information tool is being explored at the UNU International Institute for Software Technology in Macau. Through capacity-building activities, aimed at third world researchers, lecturers and industry software engineers, UNU/IIST is addressing the software technology needs of developing countries;

(d) Microprocessors and informatics. Rapidly changing technology threatens to "lock out" the developing world from the benefits of the micro-electronics revolution. The focus of this programme is on informatics, the study of the way in which information is produced, processed and utilized. It provides postgraduate training in microprocessor technology through regional training workshops around the world. The training efforts are largely coordinated at the International Centre for Theoretical Physics in Trieste, Italy.

Socio-economic implications of new technologies

97. UNU/INTECH research has continued to examine the variety of production spinoffs by technology institutes in China. Special interest focuses on such enterprises in the information technology fields as does the evolution of reform policies. Additional fieldwork in China in April and May investigated the transformation of research and development and technological systems in the Chinese machinery industry. Data analysis was continuing at year's end, with a report expected during the first half of 1996. The possibilities for using a similar methodology on country comparisons, particularly with India, were also explored.

98. During 1995, research work was completed for the project on "Export Competitiveness in Post-Apartheid South Africa". Project investigators gave course materials on the research results at a series of seminars held over a three-week period in South Africa. UNU/INTECH is considering how best to use these course materials, including possible publication. The materials may also contribute to the course work of a joint Ph.D. programme of UNU/INTECH with the

Maastricht Economic Research Institute of the University of Limburg, the Netherlands.

99. Fieldwork on the project on "Import Liberalization, Industrialization and Technological Capability in Sub-Saharan Africa" was carried out during the first three months of 1995. The project is assessing the impact of import liberalization on industrial performance and on the generation of technological capabilities during the 1980s in selected African economies. More than 40 firms were interviewed in Kenya, the United Republic of Tanzania and Zimbabwe in two industrial branches. Researchers at Queen Elizabeth House, Oxford, and the Economic and Social Research Foundation in Dar-es-Salaam, two principal cooperating institutions in the project, analysed the data obtained in the fieldwork. The manuscript containing the research findings was expected by the end of the year.

100. The project on "New Technologies and Research and Development Systems in Southern Europe", launched in 1994, has been comparing technology policies in Greece, Portugal and Spain. It has focused in particular on the relation between national research and development systems to relatively weak industrial systems. In a second phase of the project fieldwork was conducted this year at Greek research centres in computer technology, material science, biotechnology and chemical engineering. The next stage has involved comparative empirical research at research and development institutes in Portugal and Spain and on the particular case study of Application-Specific Integrated Circuits (ASIC) design capabilities as a result of European and national technological development programmes.

101. The UNU/INTECH project on "New Technologies, Economies and Scales and Scope and Location of Production in Developing Countries" was completed in 1995. A volume containing country studies, overall conclusions and implications and policy recommendations was submitted to the publisher in December. The study found that the diffusion of microelectronics-based control systems and production and design equipment in Brazil, India, Mexico, Thailand, Turkey and Venezuela was larger than expected and was accompanied by new forms of production organization which in a few cases were more advanced than in equivalent firms in developed countries. Reductions in equipment setting-up time permit the production of a wider range of goods, with economies of scope, while at the same time providing flexibility to attune production schedules more closely to time variations in demand.

102. Papers from a 1994 Workshop on Foreign Direct Investment, Economic Structure and Governments in Rotterdam were published in a volume containing country case studies of China, Indonesia, Japan, Mexico, New Zealand, Spain, Sweden and the United Kingdom. As part of the project UNU/INTECH has developed a global technology and economic development database (GLOB-TED); it is being used to analyse the role of different parameters of development in determining relative attractiveness of countries to multinational enterprises. Results of the project will be published in 1996. A Conference on Productivity, Technical Change and National Innovation Systems in Latin America in the 1990s was held at Marbella, Chile, in August. The discussion of UNU/INTECH's approaches and research results began with an examination of national systems of innovation. The meeting was jointly organized with the Economic Commission for Latin America and the Caribbean (ECLAC).

Applications of biotechnology for development

103. Training courses were organized under UNU/BIOLAC, the UNU Programme for Biotechnology in Latin America and the Caribbean, at leading biotechnology centres in Argentina, Guatemala, Mexico and Venezuela. The workshops familiarize participating scientists with the latest developments in the specific applications of biotechnology. During 1995, 23 UNU fellowships were also awarded.

104. A one-week course was held early in the year on the molecular basis of tumor growth control, differentiation and the cell cycle at the Tumor Cell Biology Laboratory of the Instituto Venezolano de Investigaciones Cientificas in Caracas. Another course on the analysis and manipulation of the plant genome was organized at the Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional in Irapuato, Mexico, in March. A two-week course on the applications of biotechnologies to agriculture was held in May at the Instituto Nacional de Tecnología Agropecuaria in Morón, Argentina. An advanced course on biochemical engineering applications in environmental biotechnology and cleaner production was held at the Instituto Centroamericano de Investigación y Tecnología Industrial in Guatemala in September. An advanced two-week training course on the application of biotechnical processes was held at the Universidad Nacional Autonoma de Mexico at Cuernavaca in October.

105. The Brucellosis Research Network, in operation since 1985, continued its activities. A network workshop in April in Valdivia, Chile, was attended by 18 scientists from Argentina, Brazil, Canada, Chile, Colombia, Mexico, the United States and Venezuela. A second workshop, on the application of biotechnology to tuberculosis research, was held at Caracas in June; 33 scientists from 15 countries participated in the workshop.

106. A new set of international scientific linkages, to be known as the Tuberculosis Research Network, is currently being established on the initiative of researchers from Latin America, Canada, the Netherlands and Spain.

Software technology for developing countries

107. UNU/IIST activities emphasize the development of reliable software over a wide spectrum of applications important to developing countries. Interest in 1995 focused specifically on (a) real-time, reactive, hybrid and safety critical systems; and (b) software support for infrastructure systems.

108. Postgraduate courses organized by UNU/IIST in 1995 included a two-week course in formal software development in Hanoi in February; two two-week courses - one in the spring, one in autumn - of lectures and student seminars at the University of Macau; a two-week course in formal software development and design techniques for real-time systems using duration calculi in June in Pinang, Malaysia; and a two-week course on formal software development and design techniques for real-time systems in Bangalore, India, in December.

109. A full-day seminar on the formal development of large-scale software systems and real-time hybrid and reactive systems design was held in Zhuhai, China, in March. A full-day seminar on the temporal logic of reactive systems and formal software development techniques was organized in August at Ulaan Baator.

110. UNU/IIST research projects were carried out in the area of hybrid systems, typically control systems with embedded computers using durational calculi as

the formal tools. Such projects were also conducted in the specification and development of reactive systems. The projects addressed reactive systems using general-duration calculi and investigated other theories of reactive systems such as compositional verification and refinement calculi. Projects on geometric reasoning and programmes were also an activity of UNU/IIST aimed at defining a specification language for the constructive geometric computing which characterizes the geometric problem domain. The projects also sought to design an algorithm to translate a specification writing in synchronous line groups (SLG) into a set of theorems to be proved, from which programmes can be extracted and which can provide interesting applications in the areas of robotics and geodetic or aerial survey.

111. Advanced joint development projects at UNU/IIST have focused primarily on software support for infrastructure. Ongoing projects include one on Railway Computing Systems (RaCoSy) which is concerned with an overall determination of a normative software architecture that will allow coexistence of, data exchange between and mutual invocation among arbitrary railway computing system software packages. The project involves joint research, training and development of selected software packages. It has received considerable attention in Europe and Asia and UNU/IIST is planning to disseminate the results of RaCoSy to other developing countries.

112. Another project has involved road management systems (RoMaNS) and the basic information technology required for toll-road booth monitoring and control. Digital multiplexed telephone systems form another advanced development and training project of UNU/IIST. This effort is initially concerned with basic telecommunications protocol aspects for a new digital multiplexed radio telephone system under research and development by the Advanced Science and Technology Institute of the Government of the Philippines.

113. UNU/IIST also initiated during the year an advanced research-and-development project on "Aviation Business and Air Traffic" which will also have a specific training focus. An exploratory aspect of the project is studying matters related to air traffic control, including airspace, airline timetables, air traffic and flight bookings. The project will also study airline operations, particularly the information infrastructure of main airline operations from planning to daily operations to statistics gathering. The project aims to assist emerging newly industrializing countries in South and East Asia.

114. Library monitoring and command systems is the subject of another UNU/IIST effort which has involved research, advanced development, training and supervision of M.Sc.-level work. The project has as its aim the training of fellows and Macau M.Sc. thesis students in advanced software technology issues, as well as research and development of a normative software architecture for a distributed computing and communications system of libraries, publishers, book distributors and borrowers and will include the development of a demonstrator system for training librarians and library users.

115. In a continuing project on "Manufacturing Industry Systems", UNU/IIST has sought to bring the results of the latest software technology research and development to bear on new developments in rapidly emerging newly industrializing countries such as Indonesia, Malaysia and the Philippines. The project is developing and providing training in analysis of the manufacturing industry application domain and its software requirements and in a normative software architecture for a computing system that not only integrates most of any one manufacturing enterprise's information, computing and

intra-communications needs, but also integrates across several manufacturing enterprises and between these and service functions such as banks.

116. Another UNU/IIST effort aims at investigating a normative software architecture for citizen and visitor information, routing and reservations. It will involve University of Macau M.Sc. students and will cover issues of large-scale multi-media, distributed and shared information-based systems. It will also serve as an example to managers/authorities in the private and public sectors of projects which can be undertaken with UNU/IIST.

117. The project on globally distributed, geographic and demographic information infrastructures is concerned with understanding geographic and demographic information system-based decision support systems and their common user access in a system for decision-making planning support. It might involve, for example, experiments with and development of construction plans (e.g., land, water or waste management) which require data and mathematical modelling across a wide spectrum of geographic and demographic information.

118. UNU/IIST continued to develop a user interface for multilingual systems adapted to information that includes scripts of different languages that do not follow the left-to-right, horizontal style of European languages. Two projects under development at UNU/IIST will address computerized information and decision support systems at a ministry of finance and a university monitoring and control system which will study the information infrastructure and command workflow and transaction processing of medium-size to large colleges and universities.

119. UNU/IIST has also provided consultancy services to several organizations and Governments during the year and made numerous presentations and interfaced with software development groups in many countries.

Microprocessors and informatics

120. Activities during 1995 continued to strengthen the capacities of universities and research institutes in developing countries in the area of informatics and communication. A micro-informatics project is coordinated from a base at the International Centre for Theoretical Physics (ICTP) in Trieste, Italy. The Government of Italy has provided support for activities in this area.

121. A workshop on computer networking was held at Pune University in India in January focusing on computer networking in developing countries using low-cost equipment and adapting to existing low-quality communication lines. A course on computerized data acquisition techniques was held in La Paz, Bolivia, in February in cooperation with the International Centre for Physics in Bogotá, Colombia.

122. A regional workshop on parallel processing and its applications was held in Yaoundé, Cameroon, in early August. Eleven lecturers and instructors from Cameroon, France, Gabon and India covered the fundamental aspects of parallelism (e.g., architecture, programming, environments and algorithms), including its applications in mathematics, mechanics, physics, chemistry and meteorology. A special session was devoted to an exchange of research activities being carried out by participants.

123. A three-week regional college on microprocessor-based real-time control of equipment was held in the autumn at the University of Cape Coast, Ghana. The 38 participants focused on facilities offered by real-time operating systems in the

design and implementation of computer-controlled instruments. The course was primarily intended for physicists and engineers working with computer-controlled systems.

124. An workshop on "telematics" held at ICTP in Trieste in October dealt with the fundamental aspects of communications and computer technologies and their role in the evolving information networks of the future. Topics included switching technology, signalling aspects, networks and protocols, multi-megabyte services and multimedia, satellite networks and wireless communication technologies.

125. A three-month workshop on academic computer networks in developing countries was organized at Trieste, Italy, in October to assist scientists from selected universities in developing countries to establish computer network infrastructures at home and connect them to the global academic networks.

126. Preliminary activities on three research-and-development projects were initiated during the year. The projects will cover: (a) universal fuzzy controller systems based on microprocessors; (b) a silicon PIN-diode-based detector for X-ray mammography; and (c) a DaAS gigabyte switch for teraflop parallel machines.

127. The "Research and Advanced Teaching in Computer Science" project, jointly coordinated with the Institut National de Recherche en Informatique et an Automatique at the University of Yaoundé, has as its aim to strengthen the capacity of the university's Department of Computer Science as a regional centre of excellence in micro-informatics as well as to promote regional cooperation in computer science. Each year, 8 to 10 lecturers are invited from France and from other African countries to give two-week courses at Yaoundé. Subjects covered in 1995 included computer vision, computerization of enterprises, parallel programming standards, parallel operating systems and neural networks. A two-week course on computer architecture was given at the University of Ouagadougou in June and a course on scientific computation was given in September at the University of Benin at Cotonou.

128. A meeting of the African Regional Research Group on Decision Support Systems was organized at the Institut Africain d'Informatique, at Libreville, in April, pursuant to a decision of the Second African Conference on Research in Computer Science, held at Ouagadougou, in October 1994, to establish a regional project on decision support systems. The outcome of the Libreville meeting was the establishment of a multi-centred research network and the production of a comprehensive project document for mobilizing funds for the project.

E. Population dynamics and human welfare

129. The impact of unchecked population growth permeates the great concerns of our age: hunger, war, environmental destruction. Rising tides of humanity threaten to inundate all our best efforts at creating a just, harmonious and sane society. These swelling populations are helping to make our cities unworkable, our farms unproductive and our Earth unlivable. The combined impact is particularly cruel to millions of innocent children.

130. Population is perhaps the most intimate of all the forces that affect human society. As such, it is susceptible to much heat and emotion - and badly in need of dispassionate scientific investigation. The UNU multidisciplinary work

on the interlinkages of population, hunger and environment problems falls under three programmes:

(a) Population, urbanization and development. This programme examines the implications of population growth and structure, urbanization trends and international migration and the resulting socio-economic consequences for unemployment and poverty, particularly in developing countries;

(b) Population, land management and environmental change (PLEC). The PLEC programme investigates the consequences for land management, hence for the environment, of continuing population growth at the global, regional and local levels;

(c) Food and nutrition for human and social development. The persistence of hunger casts an appalling moral shadow on our age. Work in this programme comprises a long-standing commitment by UNU to address major nutrition problems of developing countries and to strengthen the capacities of developing countries to confront national food, nutrition and health problems.

Population, urbanization and development

131. Work in this programme in 1995 was centred on the project on "The Mega-city and Urban Development". It is estimated that the urban sector of the developing countries will absorb virtually the entire increase in population over the next three decades. The project has dealt with the dynamism of demographic changes, the sources and consequences of economic development and social transformation and the effective management required to enhance the quality of life, living conditions and the environment of mega-cities.

132. The project held a pre-United Nations Conference on Human Settlements (Habitat II) Tokyo Conference on World Cities and the Urban Future at the UNU Centre in August, in cooperation with the National Institute for Research Advancement, bringing together speakers from 14 countries to review case studies from Asia and the Pacific, Africa, Latin America and the Caribbean, Europe, and North America. Emphasizing the impacts of globalization on urban growth, a series of recommendations on world cities and urban development has been drafted and will be submitted to the Habitat II secretariat. UNU Press will publish a book, World Cities and the Urban Future, based on selected papers from the pre-Habitat II Tokyo Conference.

133. In another contribution to Habitat II, UNU/WIDER organized a Conference at Helsinki in August in cooperation with the Finnish Ministry of Environment on "Human Settlements in the Changing Global Political and Economic Processes".

134. Three volumes on urban problems are expected to be published by UNU Press in 1996: Emerging World Cities in Pacific Asia; Mega-cities in Latin America; and The Challenge of Urban Growth in Africa.

Population, land management and environmental change

135. The PLEC programme focuses on land resources and biological diversity in managed agro-ecosystems among smallholder farmers in tropical and subtropical areas of Africa, Asia and Latin America and the Caribbean. It analyses questions of sustaining production under pressure of population growth, migration, penetration of markets, transformation of land-use systems and changing agricultural systems. Full account is taken of the traditional agricultural systems and practices that have evolved over time in the regions

concerned. Emphasis is given to the development of a participatory research methodology and capacity-building. The goal is to produce researched policy-relevant options for the preservation of biodiversity in smallholder agricultural systems.

136. An international collaborative research initiative, PLEC is based on a comparative network of locally based research clusters; five are now operational in West Africa, East Africa, Montane Mainland South-East Asia, Papua New Guinea and Amazonia, and a sixth is being developed in the Caribbean region. On an inter-programmatic level, the African clusters maintain close links with UNU/INRA. The programme also collaborates actively with the UNU Mountain Ecology and Sustainable Development project.

137. The initiative has received financial support from the United Nations Population Fund (UNFPA) and project development funds from the Global Environment Facility (GEF) through UNEP. An important activity in 1995 was the preparation of a full funding proposal for GEF.

138. Through PLEC, UNU played a key role in the International Symposium on Montane Mainland South-East Asia in Transition held at Chiang Mai University, Thailand, in November. The symposium was organized with a number of national institutions: the Chinese Academy of Social Sciences/Kunming, the Institute of Rural Economy of Yunnan Academy of Social Sciences, the Viet Nam Upland Management Working Group, the Thailand Development Research Institute, CARE International-Thailand and international institutions including the Ford Foundation, the East-West Center, the World Resources Institute, the International Institute on Environment and Development, South-East Asian Universities Agro-ecosystems Network, the Centre for International Forestry Research and the International Centre for Research in Agroforestry.

139. The results of the first phase of the project's research were reported in a special issue dated September 1995 of the journal Global Environmental Change: Human and Policy Dimensions published by Butterworth-Heineman, in cooperation with UNU.

140. Within the project on "Critical Zones in Global Environmental Change", three books 8/ were published by UNU Press in 1995. Further case studies are being undertaken jointly with the International Geographical Union Commission on Critical Environmental Regions and Situations. A book 9/ emanating from an earlier related project was also published by UNU Press in 1995.

Food and nutrition for human and social development

141. Activities within this programme have continued within six global projects, with the active involvement of other organizations of the United Nations system. The programme has also attracted extrabudgetary resources in excess of US$ 900,000. The work continued to be directed from its coordinating office in Boston, Massachusetts, United States, but plans were developed for the gradual transfer of activities to a new research-and-training coordinating centre on the campus of Cornell University in Ithaca, New York. Efforts to mobilize funding for this coordinating centre were undertaken during the year.

142. In 1995, the applications of rapid assessment procedures (RAP) using qualitative anthropological techniques to programme design, evaluation and improvement continued to spread. The best evidence for this has been the growing demand for the RAP manual, which has gone into its fifth printing. The manual is being revised and updated with the addition of a training component.

Two specialized RAP publications have been developed and widely distributed: "Guidelines for the Rapid Assessment of Social, Economic and Cultural Aspects of Malaria", and "Rapid Assessment Procedures: Ethnographic Method to Investigate Women's Health".

143. The manuscript for a set of RAP guidelines on the study of AIDS-related behaviour is undergoing final revision. A number of earlier RAP publications have had to be reprinted or have been translated into other languages. A RAP training workshop was held at Dakar in September with support from the French Ministry of Cooperation and the United Nations Children's Fund (UNICEF). RAP techniques have been included in the courses offered at the Institute of Nutrition at Mahidol University in Thailand. A proposal has been developed for a new type of workshop for 1996, known as "RAP-Plus", for policy makers, planners and research coordinators that will provide them with some familiarity with both quantitative and qualitative survey techniques and their integrated use.

144. UNU efforts continued in 1995 in the area of identifying and promoting measures to control iron deficiency, the most prevalent and neglected of the micronutrient deficiencies. The first reports from a UNU-coordinated multi-centre study of the feasibility and effectiveness of weekly as opposed to daily supplementation have been encouraging. The results from China, Guatemala, Malaysia and the United States show that weekly administration is equally effective in raising haemoglobin levels and was virtually without side effects. The studies are continuing in Guatemala, Indonesia and Mali. Funding for this initiative has been received from the Micronutrient Initiative of Canada for an investigators meeting in Bangkok in February 1996, at which a meta-analysis of the data will be undertaken.

145. With support from UNICEF, UNU has studied the prevalence of iron-deficiency anaemia in Kazakstan and Uzbekistan in collaboration with the Institute of Nutrition in Almaty. The study reviewed the high prevalence of iron-deficiency anaemia among pregnant women, women of child-bearing age and children in the two countries. Based on the results of the study, iron supplementation and iron fortification projects have been designed for implementation in 1996.

146. UNU has continued to participate in the United Nations Administrative Committee on Coordination Subcommittee on Nutrition (ACC/SCN) meetings. A meeting of the Group for the Control of Iron Deficiency was held in June just prior to the ACC/SCN annual meeting. It was attended by all international and bilateral agencies concerned with nutrition and also included some NGOs. Each agency or organization reported on its activities related to the control of iron deficiency anaemia, but the major part of the meeting was taken up by a presentation and discussion of the UNU-sponsored multi-centred trials of weekly iron administration.

147. In partnership with the International Union of Nutritional Sciences and the World Health Organization (WHO) and FAO, UNU continued to promote the International Dietary Energy Consultative Group. At the annual ACC/SCN meeting in June, the report of the Group's project and its publications received special commendation. A major activity within this area in 1995 was the editing of the proceedings of the Workshop on Protein-Energy Requirements held in London in December 1994. It has now been published as a supplement to the European Journal of Clinical Nutrition and will be reprinted by the Nestlé Foundation. The report will highlight important findings announced at the London meeting, viz., that the critical gap in knowledge of human amino acid requirements was that for lysine, which appears to be the limiting amino acid in the

predominantly cereal diets of most developing countries. This information may prove essential for judging the desirability of lysine fortification of cereals. The project is also sponsoring a set of field tests of two portable respirometers, which are relatively portable and inexpensive, to measure the energy cost of human activity.

148. UNU has been joined by FAO in a global effort to improve the quantity and quality of food composition data worldwide. UNU's role continues to be the establishment and linking of regional databases. As a follow-up to the UNU-FAO organizational meeting for AFROFOODS held at Accra in September 1994, a meeting of francophone African countries was held at Dakar in February 1995. The Instituto de Nutrición y Tecnología de los Alimentos, University of Chile, Santiago, has assumed responsibility for LATINFOODS in South America. A grant from the International Development Research Centre (IDRC), Canada, has provided a high-capacity computer and UNU awarded fellowships for training in food composition database management at the Wageningen Agricultural University in the Netherlands and database programming in Palmerston North, New Zealand.

149. An organization meeting of NORAMFOODS regional database for Canada, Mexico and the United States took place at the United States Department of Agriculture (USDA) at Beltsville, Maryland. One outcome of the meeting was the agreement of USDA to assume responsibility for the NORAMFOODS regional database. Another important achievement was the participation of the International Food Distributors Association (IFDA), which is the repository of nutrient composition data for processed foods in international trade. Both USDA and IFDA agreed to use the INFOODS tag names which would permit free exchange of data with other regional and national databases in the INFOODS system.

150. Two task force meetings were organized at Beltsville under the auspices of UNU, FAO and the International Union of Nutritional Sciences (IUNS). One meeting established quality tags for food composition data that will be incorporated into the INFOODS system and the other provided guidelines for a future meeting of the UNU-sponsored IUNS Committee on Terminology and Nomenclature for Food Composition Databases.

151. An organizational INFOODS meeting for Middle Asia (MASIAFOODS), with the participation of China, the Democratic Peoples Republic of Korea and the Republic of Korea was held at Beijing immediately following the Seventh Asian Congress on Nutrition in October. An organizational INFOODS meeting for the Arab Gulf States was held in Dubai in November in order to set up GULFOODS. Participating countries included Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

152. The International Food Intake Directory project continued to provide important input to epidemiological studies and summarize all food intake data available over the last 40 years from as many developing countries as possible. Some of the Asian and Latin America/Caribbean summaries have already been printed. In 1995, new data were received from 14 African countries. Additional input from other developing nations is pending.

153. The UNU quarterly journal Food and Nutrition Bulletin, now in its sixteenth year, is one of the few publications that reach developing-country nutrition and health workers. UNU also continued to publish jointly with Academic Press the quarterly Journal of Food Composition and Analysis.

III. BUILDING CAPACITIES: POSTGRADUATE EDUCATION

154. The UNU training and fellowship programme supports primarily young scholars and scientists from developing countries. It aims to assist them in understanding complex problems in their global context and in developing their analytical skills. Such training also helps build capacities at institutions in developing countries that are part of the UNU global networks. The programme responds to the UNU Charter directive to alleviate the intellectual isolation that can affect scholars in developing countries.

155. In the 20 years since the inception of the UNU training programme, some 1,400 Fellows have completed their studies. While this number may seem small, it should be emphasized that UNU fellowships are aimed at the "teachers of teachers". Many former Fellows are now in positions where they can influence development and educational policies in their own nations. UNU training thus has a ripple effect in the international intellectual community. In 1995, 80 UNU Fellows finished their work, while another 82 began their training.

156. In the area of geothermal energy, there were 16 Fellows, from China, Egypt, El Salvador, Indonesia, Jordan, Kenya, Nepal, the Philippines, Romania and Uganda. Seven Fellows from Latin America and the Caribbean were being trained in remote-sensing technology at the Instituto de Pesquisas Espaciais in Brazil. Seven UNU Fellows from Africa and Asia participated in the programme on renewable systems of energy at the Indian Institute of Technology, New Delhi. There were five Fellows from Asia in solar energy utilization at Anna University, Madras, India, and three UNU Fellows from Fiji, Mongolia and the Solomon Islands in seismic and cyclone hazard mitigation at the Asian Disaster Prevention Centre, Asian Institute of Technology, Thailand.

157. One UNU Fellow from Argentina, two from Cuba and one from Uruguay are following the Master's degree programme in science and technology policy at the Universidad Estadal de Campinas, Brazil. Twelve Fellows in biotechnology are in training at various institutions in Latin America; 15 UNU Fellows from China, India, Indonesia, Mongolia, the Philippines and Viet Nam are learning software technology at UNU/IIST in Macau.

158. The rolls also include: one Fellow from Niger studying in micro-informatics at the University of Yaoundé; one UNU fellow from China at the University of California, Davis, United States, in mountain ecology and sustainable development; two UNU Fellows from Ethiopia and Nigeria in food technology at the Central Food Technological Research Institute, India; one UNU Fellow from Venezuela in food and nutrition at the Instituto de Nutrición de Centro América y Panamá, Guatemala; two UNU Fellows from Africa in the Master's programme in applied human nutrition at the University of Nairobi; one UNU Fellow from Zimbabwe at the Institute for Crop and Food Research, New Zealand; and five UNU Fellows from China, India and Viet Nam are in a training programme at the National Food Research Institute in Tsukuba, Japan.

159. In addition to the training provided under the regular UNU Fellowship Programme, short training courses of one to six weeks' duration were organized during the year. For example, a one-week UNU Global Seminar '95 on the United Nations peace efforts during its first 50 years was held in Japan; a six-week course in natural hazard reduction was held in Switzerland; and five two-week training workshops in specialized areas of biotechnology were organized in Argentina, Guatemala, Mexico and Venezuela.

160. Eight two-week postgraduate courses in computer science were held at the University of Yaoundé, Cameroon; a training workshop on computer networking was held in India; a course on computerized data acquisition technologies was held in Bolivia; and training workshops on international environmental law were organized in Spain and at the UNU headquarters in Tokyo. More than 500 persons participated in UNU training courses during the year.

161. A highlight of UNU training in 1995 was the Award Ceremony of the UNU-Kirin programme at UNU headquarters in April. The Fellows each gave brief presentations of their research results and were presented with a UNU certificate confirming the completion of their training. A unique part of the Kirin Fellowship scheme is the follow-up research support which is provided to former Fellows. The second group of UNU Fellows who completed their research activities in April were provided with such support through institutional contractual agreements with their home institutions.

162. A notable expansion in UNU training activities in 1995 was the establishment of the UNU International Leadership Academy in Amman. This initiative, supported by the Government of Jordan, is designed to create a community of potential future leaders who have shared a common training experience in global issues. Preparatory activities started in 1995; the University has already concluded the necessary legal instruments to locate the offices of the new UNU academy on the campus of the University of Jordan.

163. The UNU Institute of Advanced Studies (UNU/IAS), at its new premises located next to UNU headquarters, launched a series of postgraduate training activities in 1995. A training course on planning for sustainable development in the Asia-Pacific region was jointly organized with the Asian Institute of Technology in Bangkok. A Ph.D. internship programme at UNU/IAS has been started and plans are under way to initiate activities with Keio University in Japan and the Tata Energy Research Institute (TERI) in India for a high-level human resources development effort in the area of eco-restructuring. There are also plans to organize a two-week course in synchrotron radiation at the National Laboratory for High Energy Physics of Japan in early 1996.

164. Following on earlier discussions with the Government of Iceland, work has begun on a Government-funded feasibility study for a programme on fisheries training. Pending the positive recommendations of the feasibility study, it is expected that it will be possible to establish a UNU Fisheries Training Centre with the support of the Icelandic Government, and the first group of UNU Fellows might start postgraduate training in fisheries as early as April 1997.

Table 1. 1995 UNU Fellowships by programme area

Sustaining global life-support systems	
Geothermal energy	16
Natural resources and the environment	23
Advances in Science and Technology	
UNU/IIST, including Ph.D internship	15
UNU/BIOLAC	12
Micro-informatics	1
Other fields	4
Population dynamics and human welfare	
Food and nutrition	11
Total	82

165. At UNU/INTECH in the Netherlands, a Ph.D. internship scheme has continued and a group of new interns took up their positions at the Institute. The number of interns has had to be reduced owing to the need to develop the infrastructure for a joint Ph.D. programme which is under discussion with the Maastricht Economic Research Institute (MERIT) of the University of Limburg. A new initiative, with the Commission of the European Communities, brought three young Ph.D. programme researchers to UNU/INTECH for periods of six months between mid-1995 and the end of 1996.

166. Discussions with MERIT on a joint Ph.D. programme on "Technological Change and the Economy" continued in 1995. The content of the course work, discussed by the UNU/INTECH Board in 1994, has been established. Subsequent negotiations on the administrative and financial basis for the programme have been concluded and a group of 15 students was selected for the first course. Three of the candidates from developing countries were unable to continue in the course for institutional and financial reasons, but the course work component is under way. Examinations were held in December to help determine which of the candidates will be allowed to continue on to the dissertation phase.

167. UNU/IIST training activities involved the training of 12 Fellows in 1995, including 4 from China, 1 each from India and Mongolia and 3 each from the Philippines and Viet Nam. The period of training ranged from 9 to 12 months. These Fellows are seconded from partner institutions in developing countries to be trained in high-level software development methods and research techniques; part of their training requires them to contribute to the ongoing research-and-development projects of the Institute.

168. UNU/IIST's postgraduate and postdoctoral courses seek to enhance awareness of and provide comprehensive training in most advanced software technology development techniques within the Institute's areas of focus: software support for infrastructure systems and reactive and hybrid systems. In addition, UNU/IIST offers offshore courses which can involve a larger number of participants. In 1995, it conducted seven such courses, some of them for students at the University of Macau. More than 125 individuals participated in the courses. The Institute also provides supervision for M.Sc. and Ph.D. students, and several of the Fellows at UNU/IIST from China spent their period of study at the Institute as Ph.D. interns. Increasingly, the academic staff of the Institute are receiving appointments as adjunct, assistant or honorary professors at the seconding university departments or research institutes from which the Fellows are selected.

UNU fellowships and training

169. Eighty-two UNU fellowships were awarded in 1995, bringing the total number of Fellows trained by UNU since 1976 to 1,400. UNU Fellows in 1995 were from Argentina, Bangladesh, Bolivia, Cameroon, Chile, China, Colombia, Costa Rica, Cuba, El Salvador, Egypt, Ethiopia, Fiji, India, Indonesia, Jordan, Kenya, Madagascar, Mongolia, Myanmar, Nepal, Niger, Nigeria, Peru, the Philippines, Romania, Solomon Islands, the United Republic of Tanzania, Uganda, Uruguay, Venezuela, Viet Nam and Zambia. Seventy-three per cent of the UNU Fellows trained in 1995 received training at institutions in developing countries; 27 per cent received training at institutions in industrial countries. The main areas of UNU training in 1995 included: applied human nutrition, biotechnology, seismic and cyclone hazard mitigation, food composition data, food science and technology, geothermal energy, micro-informatics, remote-sensing technology, renewable energy systems, science and technology policy and software technology. About 500 individuals attended UNU training workshops in 1995.

IV. DISSEMINATION OF RESEARCH FINDINGS

170. Dissemination of the results of the work being carried out by United Nations organs is a key activity to ensure that Governments of Member States, academic institutions and the public at large are aware of the contributions of the organizations of the United Nations system towards improving the human condition. This is particularly true of UNU, which, unlike other United Nations organs, does not focus its work on a specific "topic", such as health, labour, food and agriculture, or trade, but rather carries out research on different topics. Disseminating "research results" is a particularly difficult task because they sometimes appear not to focus on real issues. Nevertheless, such research is crucial to developing a clearer understanding of complex problems, such as peace and conflict resolution, or environmentally sustainable development. Such understanding is necessary to develop and select appropriate policy approaches for solving such problems. Dissemination of research results to scholars and experts studying similar problems is important because it helps to corroborate findings, evoke critical comments or indicate possible new directions of research.

171. In 1995, dissemination of results of UNU research continued to be carried out mainly through the publication of books, proceedings, reports, papers, journal articles and journals, through public information activities, such as meetings, press interviews, press releases and the publication of newsletters and reports, and through public meetings of an academic nature.

172. Publishing was carried out mainly by the University's publishing arm, as well as in collaboration with other scholarly publishers in different countries. Books published during the year covered a number of areas, including sustainable development, the United Nations system, water problems, development economics, urban problems, political and administrative development, social development issues (drugs and violence), gender studies and environmental problems (including a new series on critical environmental regions). Notable among publications for the year were: The United Nations System: The Policies of Member States, edited by Chadwick F. Alger, Gene M. Lyons and John E. Trent; State, Society, and the United Nations System: Changing Perspectives on Multilateralism, edited by Yoshikazu Sakamoto; Hydropolitics along the Jordan River: Scarce Water and Its Impact on the Arab-Israeli Conflict, by Aaron Wolf; Managing Water for Peace in the Middle East: Alternative Strategies, by Masahiro Murakami; Steering Business toward Sustainability, edited by Fritjof Capra and Gunter Pauli; Amazonia: Resiliency and Dynamism of the Land and its People, by Nigel J. H. Smith, Emanuel Adilson S. Serrão, Paulo T. Alvim and Italo C. Falesi; Regions at Risk: Comparisons of Threatened Environments, edited by Jean X. Kasperson, Roger E. Kasperson and B. L. Turner II; In Place of the Forest: Environmental and Socio-economic Transformation in Borneo and the Eastern Malay Peninsula, by Harold Brookfield, Lesley Potter and Yvonne Byron; Emerging World Cities in Pacific Asia, edited by Fu-chen Lo and Yue-man Yeung; Global Employment: An International Investigation into the Future of Work (two volumes), edited by Mihály Simai; Women Encounter Technology, edited by Swasti Mitter and Sheila Rowbotham; and Ethnicity and Power in the Contemporary World, edited by Kumar Rupesinghe and Valery A. Tishkov. The impact of some of these results can be seen in the descriptions, which include some book reviews, of work carried out during the year.

173. UNU Press books were reviewed in more than 40 journals worldwide during 1995. Among the notable reviews are the following: "... highly recommended this book to those ... interest[ed] in Middle East water issues ... It serves

as an excellent international watershed case study ... [and] ... as a strong example of a thorough research project with a disciplinary framework" (review of Hydropolitics along the Jordan River, in Water Resources Development, August 1995); "Managing Water for Peace in the Middle East makes a valuable technical addition to ... literature on water-related conflict potential and its alleviation in the Middle East and other arid portions of the world" (review in Environment, vol. 37, No. 7, September 1995); "[State, Society and the United Nations System] departs from and complements earlier work by focusing on the policies of seldom-studied smaller states" (review in International Journal, summer 1995); and "... the book is worth reading ... the reader can form an idea for himself whether it is reasonable, possible or desirable to apply principles of ecosystems to economic systems" (review of Industrial Metabolism: Restructuring for Sustainable Development, edited by Robert U. Ayres and Udo E. Simonis in IÖW und VÖW Informationsdienst, 1/95).

174. Requests for permission to use material from UNU books continues to grow. Most requests come from universities in the United States wishing to reprint material in planned publications or to photocopy material for classroom use. Organizations requesting permission included: University of California at Los Angeles, Stanford University, Boston University, Harvard Law School, Simon Fraser University, Cornell University, University of Calgary, University of Tokyo, East-West Center, Australian National University, Sagami Women's University, International Labour Organization, and the World Hunger Program.

175. During the year, UNU/WIDER, on the occasion of its tenth anniversary, launched a new publication series entitled "World Development Studies". The first five issues in the series became available during the year: Small Islands' Big Issues: Crucial Issues in the Sustainable Development of Small Developing Islands, containing papers presented at the Global Conference on the Sustainable Development of Small Island Developing States in 1994; Emerging Labour Markets: Labour Market Developments and Transitional Unemployment in Central and Eastern European Countries, authored by Arvo Kuddo, a former Minister of Labour and Social Affairs in Estonia who is currently a Research Fellow at UNU/WIDER; Food Security in Africa: Concepts, Measurement, Policy and Reality, authored by Siddig A. Salih, Senior Research Fellow at UNU/WIDER; Economic Reforms, Women's Employment and Social Policies: Case Studies of China, Viet Nam, Egypt, and Cuba, edited by Valentine M. Moghadam, currently Senior Research Fellow at UNU/WIDER; and The Limits of the Global Village: Globalization, Nations and the State, by Professor Hernando Gómez Buendía, UNU/WIDER Sasakawa Chair in Development Economics at UNU/WIDER.

176. UNU/INTECH published a number of volumes during the year, including The Spread of Japanese Management Techniques to Developing Countries, by Raphael Kaplinsky with Anne Posthuma (Frank Cass and UNU Press, January 1995); The Politics of Technology Policy in Latin America, María-Inés Bastos and Charles Cooper (Routledge/UNU Press, 1995); Exporting Africa: Transformation, Trade and Industrialisation in Sub-Saharan Africa, by Samuel Wangwe (Routledge/UNU Press, 1995); Women Encounter Technology (mentioned above), and The Pursuit of Science and Technology in Sub-Saharan Africa under Structural Adjustment, by John Enos (Routledge/UNU Press, 1995). UNU/INTECH also issued numerous working papers and discussion papers, and a number of journal articles and book chapters by UNU/INTECH researchers were published during the year.

177. UNU/IIST dissemination efforts included publication of a number of papers and articles. UNU/IIST disseminates software technology through the training of its Fellows, through its research and advanced development projects and through offshore postgraduate and postdoctoral courses. During 1995, research staff of

the Institute, Fellows and sponsored collaborators gave numerous presentations both in Macau and internationally.

178. The editing of the proceedings of a conference jointly organized by the PLEC programme of UNU, UNU/INRA and the University of Ghana at Accra in 1992 were completed in 1995 with publication scheduled in early 1996 under the title: Sustaining the Future: Economic, Social and Environmental Change in Sub-Saharan Africa, edited by George Benneh, William B. Morgan and Juha I Uitto.

179. UNU Press moved a step closer to electronic publishing with an agreement late in the year to jointly publish with Monash University in Australia a CD-ROM version of Food Habits in Later Life: Cultural Approaches, edited by Mark L. Wahlqvist et al. This approach is being used because the volume, with over 1,000 tables, can be made more useful to researchers if produced in CD-ROM format. UNU also made progress in the development of several homepages and in electronic bulletin-boards and conferences using the Internet. It is expected that additional progress will be made in this area in early 1996.

180. Four UNU journals were also issued during the year: Food and Nutrition Bulletin; Journal of Food Composition and Analysis; Mountain Research and Development; and ASSET (Abstracts of Selected Solar Energy Technology).

181. During 1995, the University published numerous books, reports, papers and journal articles. Annex III to the present report contains a complete list of UNU titles issued during the year. Income from sales of UNU Press publications totalled US$ 275,000 in 1995.

About UNU books

182. Since 1975, UNU has published 401 books through UNU Press and through specific co-publishing arrangements. In 1995, 14 books were issued by UNU Press and 12 books were published through specific co-publishing arrangements. Revenue generated by the sale of UNU publications in 1995 was approximately US$ 275,000. UNU maintained 61 depository libraries in 49 countries during 1995.

V. INTERFACE WITH THE UNITED NATIONS SYSTEM

183. As the academic arm of the United Nations system, UNU worked with a number of organizations of the United Nations system in the conduct of its research, postgraduate training and dissemination activities. The following summary provides the highlights of the University's cooperation with other parts of the United Nations system during the year. The Rector and his senior colleagues participated in a number of United Nations meetings, conferences and discussions during 1995. Notable among these was the Rector's participation in a meeting of senior officials of the United Nations, his presentation of the annual report of the University to the Economic and Social Council, as well as his participation in the commemoration of the fiftieth anniversary of the United Nations in New York. The University was represented at a number of meetings of the United Nations system, including those held at United Nations Headquarters in New York, at the United Nations Offices at Geneva and at UNESCO headquarters in Paris.

Bretton Woods institutions

184. Under the food and nutrition programme, one of the focuses of research has been on the functional consequences and prevention of iron deficiency. In collaboration with several organizations, UNU is carrying out a 12-country field research study to test the effectiveness of weekly versus daily doses of iron supplements for the prevention of iron deficiency anaemia. The World Bank is providing financial contribution to this effort.

185. Discussions are being pursued between UNU and the Bretton Woods Institutions on the possibility of a joint training programme at UNU in cooperation with the Bretton Woods Institutions for the benefit of the developing world. In response to the need increasingly felt in both the United Nation and the Bretton Woods Institutions for training in these areas, UNU has advanced a proposal for setting up a recurrent one-month training programme for staff of United Nations agencies, the Bretton Woods Institutions and States Members of the United Nations in four major areas: economic development, social policy, international finance and international institutions.

Economic Commission for Latin America and the Caribbean

186. The second UNU/INTECH conference was held at Marbella, Chile, in August jointly with ECLAC on the theme of "Productivity, Technical Change and National Innovation Systems in Latin America in the 1990s". The proceedings of the conference will be published in book form in English and possibly in Spanish. Arrangements are under way for the conference results to be presented at a conference scheduled to be held in the second half of 1996 with the Inter-American Development Bank in one of the MERCOSUR countries (Argentina, Brazil, Paraguay and Uruguay). The joint August event led to the signing of a letter of cooperation between UNU/INTECH and ECLAC that forms a basis for further collaboration between the two institutions centring on the areas of science and technology and development.

Food and Agriculture Organization of the United Nations

187. The UNU food and nutrition programme worked cooperatively with many United Nations and other agencies, including FAO, UNICEF and WHO. Notable among such cooperative activities under the programme is the International Food Data Systems (INFOODS) project, in which FAO has joined forces with UNU to improve the quantity and quality of food composition data that the UNU continues to

establish and link worldwide on a regional and subregional basis. UNU also cooperated with FAO, which serves as Task Manager for chapter 13 of UNCED Agenda 21 in the area of managing fragile ecosystems and in research on issues pertaining to the sustainable development of mountain and highland regions.

International Labour Organization

188. Within the framework of a project on "Changing Employment Patterns and the Structure of Unemployment in Africa", UNU/WIDER organized a workshop in Accra, in July in collaboration with UNU/INRA and the Employment and Development Department of ILO. Some of the studies commissioned for the project provided data and information for a UNU/WIDER conference in August in preparation for Habitat II.

United Nations Conference on Trade and Development

189. In maintaining active contacts with UNCTAD in areas related to technology and investment, UNU/INTECH addressed the United Nations Commission on Science and Technology for Development for which UNCTAD assumes the secretariat function, in Geneva in May. UNU/INTECH also made a group and individual contribution to the UNCTAD ATAS Bulletin. Through its links with the UNCTAD Division for Transnational Corporations and Investment, UNU/INTECH provided advice and comments on parts of the World Investment Report 1994 prepared by the Division and plans to contribute a paper to the World Investment Report 1995. UNU/IIST is working with UNCTAD in developing a course module on software technology and will assist in technical presentations on issues such as the application of software and on hardware requirements.

United Nations Environment Programme

190. The University cooperated with UNEP in a number of its environmental projects. UNU and UNEP cooperated in the organization of the Asian Water Forum in Thailand in February 1995. UNU also worked closely with the newly established UNEP International Environmental Technology Centre in Osaka, Japan. UNU and UNEP also explored the possibilities for future collaboration in the area of a joint Master's degree programme in environmental law to be undertaken at the University of Colombo. UNU participated in a UNEP/UNITAR training workshop on environmental law and policy and a UNEP-IUCN meeting of legal experts on the teaching of environmental law. The Rector and the Executive Director of UNEP exchanged letters to promote further collaboration in the field of environmental law and research related to the implementation of environmental accords.

United Nations Educational, Scientific and Cultural Organization

191. Under the cooperation agreement between UNU and UNESCO concerning the UNESCO/UNU UNITWIN Chairs Programme which was officially signed in February 1994, a UNESCO/UNU Chair in Plant Biotechnology located at the University of Beijing, is under way with the aim of establishing a national centre of excellence in plant biotechnology and training postgraduate students and researchers in this field. The organizations have also agreed to create the first UNU/UNESCO Zero Emissions Research Professorship to be located at the University of Namibia in Windhoek.

192. Within the same framework of the UNESCO/UNU UNITWIN Chairs Programme, UNU/WIDER has initiated preliminary discussions on the establishment of a

Network of Global Economics with financial support from UNESCO and UNU headquarters.

193. UNU, jointly with UNESCO, organized an international symposium on Science and Culture: Common Path for the Future at UNU headquarters in September 1995. The four-day symposium, attended by world-renowned scholars, was held in commemoration of the fiftieth and twentieth anniversaries, respectively, of UNESCO and UNU, for the purpose of identifying a truly comprehensive and interdisciplinary strategy in science and culture in face of the challenges of the twenty-first century. At the close of the symposium, a message from participants was released at a press conference.

194. UNU, together with UNESCO and Yamanashi University, organized an international symposium entitled "Rivers and People in South-East Asia and the Pacific - Partnership for the Twenty-first Century" at headquarters in October. The symposium presented the results of the UNESCO International Hydrological Programme (IHP) at the completion of its fourth phase and drew up plans for a fifth phase over the years 1996-2000. A catalogue of rivers of South-East Asia and the Pacific was distributed at the symposium as one of the outputs of the fourth phase of work.

United Nations Population Fund

195. The University's PLEC programme as carried out with financial support from UNFPA and the Global Environment Facility (jointly managed by the World Bank, UNDP and UNEP), which was directed towards the ongoing implementation of the project through field research in six cluster areas of tropical and subtropical environments.

Office of the United Nations High Commissioner for Refugees

196. UNU, the Office of the United Nations High Commissioner for Refugees (UNHCR) and the Ministry of Foreign Affairs of Japan organized an international seminar on The Indo-Chinese Exodus and the International Response in October at UNU headquarters in Tokyo, for the purpose of increasing understanding of the exodus and its immediate and long-term effects.

United Nations Children's Fund

197. Cooperation between UNICEF and UNU took place within the framework of the UNU programme on food and nutrition for human and social development. For example, UNICEF provided support for a UNU effort to study the prevalence of iron deficiency anaemia in Kazakstan and Uzbekistan; and a workshop on rapid assessment procedures (RAP) was held in Dakar, in September with support from UNICEF.

United Nations Industrial Development Organization

198. UNU/INTECH made a substantive contribution to the World Forum on Industrialization organized by UNIDO at New Delhi in October 1995. At the invitation of the Director-General of UNIDO in mid-1994, UNU/INTECH endeavoured to bring the work of a number of staff members into a synthesis in line with the main agendas of the Forum and produced a document of about 50 pages. UNU/INTECH's contribution was therefore based nearly entirely on its existing work, covering such areas as international linkages, women's employment, information technologies and manufacturing systems.

United Nations Development Fund for Women

199. UNU/INTECH's project on "Monitoring the Impact of New Technologies and Women's Industrial Work in Asia" has been conducted from the planning stage in cooperation and collaboration with UNIFEM. UNIFEM has also provided funding for the initiative, together with the Government of the Netherlands.

United Nations Institute for Training and Research

200. UNU participated in the meeting convened by UNITAR of directors of United Nations institutes and programmes for training, research and planning, held at Geneva, on 28 and 29 June 1995. The University also provided expertise for a UNEP/UNITAR training workshop on environmental law and policy.

United Nations Research Institute for Social Development

201. The University sent a representative to the thirty-third session of the Board of UNRISD which was held on 26 and 27 June 1995. Informal discussions during the meeting indicated possible areas of future collaboration. In 1995, four books emanating from a UNU/UNRISD research project were issued: Mexico's "War" on Drugs: Causes and Consequences, by María Celia Toro; Unintended Consequences: Illegal Drugs and Drug Policies in Nine Countries, by LaMond Tullis; Marijuana in the "Third World"; Appalachia, USA, by Richard Clayton; and The Burmese Connection: Illegal Drugs in the Golden Triangle by Ronald Renard. These books constitute volumes 3 to 6 of a series of studies on the impact of the illegal drug trade and were co-published by UNU Press and Lynne Rienner Publishers, Inc., of the United States. A UNU/INTECH researcher also chaired a UNDP/UNRISD workshop on "Gender and Macroeconomic Politics" at the NGO Forum of the Fourth World Congress on Women held at Beijing, in September.

Other links with the organizations of the United Nations system

202. A meeting of a High-level Group on Development Strategies and Management of the Market Economy was organized by UNU/WIDER in July at Helsinki. The Group had been established by the Department of Economic and Social Information and Policy Analysis of the United Nations Secretariat to assist the work of the Secretariat on macroeconomic issues. UNU/WIDER had participated actively in the group's work together with the International Institute for Applied Systems Analysis (IIASA). The July meeting was a concluding meeting of the group in follow-up to the first and second meetings held respectively in October 1994 in New York, and in April in Laxenburg, Austria. Papers emanating from the three meetings are planned to be published in book form.

203. UNU organized a Conference on the Sustainable Future of the Global System which was sponsored by the United Nations Commission on Sustainable Development and the Japan Environment Agency and held at headquarters in Tokyo in October. The Conference was held within the framework of a project entitled "Sustainable Global Future: Scenario Building for the Twenty-first Century", the goal of which was to generate information, analytical skills, and knowledge needed to formulate strategies and policy alternatives for sustainable development. The project was launched in 1994 and is continuing under UNU/IAS in close collaboration with the Department for Policy Coordination and Sustainable Development and other related departments of the United Nations Secretariat. A book emanating from the October Conference will be published.

204. As part of the collective efforts of UNU to contribute to the implementation of Agenda 21, UNU/INTECH embarked on a pilot project to examine

the legal framework for environmental control in a developing country and to examine the effectiveness of enforcement of environmental law. In the framework of that project, exploratory field research was carried out in Mexico resulting in a report entitled "Transfer of Environmentally Sound Technology" to be published as a UNU/INTECH working paper. The report was presented at a meeting of the United Nations Commission on Sustainable Development in New York in April. The coordinator for the UNU Mountain Ecology and Sustainable Development project also gave a presentation on UNU's work before the Commission in April.

205. The UNU food and nutrition programme participated in two meetings of the Subcommittee on Nutrition of the Administrative Committee on Coordination. Those opportunities were amply utilized to report on and explore further collaboration in the United Nations system concerning the major activities of the programme. The Chairman of the Subcommittee congratulated UNU on the breadth and depth of its several sponsored activities. Those activities were elaborated on in the report of the Subcommittee on the work of its twenty-second session, held in Washington, D.C. in June 1995.

206. As the focal point of UNU for the World Summit for Social Development held at Copenhagen in March, UNU/WIDER participated in and contributed to the preparatory process for the Summit. Based on its own expertise and studies for the Summit, UNU/WIDER prepared two volumes for publication and presented one of them at the World Summit, the volume entitled Global Employment: An International Investigation into the Future of Work, focusing on general aspects of the economic, political and social dimensions of unemployment as well as the gender dimension of the issue. A UNU delegation headed by the Rector participated in the Summit and the Rector made a presentation to the plenary.

207. UNU made a substantive contribution to the Fourth World Conference on Women, held at Beijing, in September. The presentation drew on UNU's recent and ongoing research activities in the area of women in development, in particular the UNU/WIDER project entitled "Global Restructuring and Women Workers in Industrializing and Transitional Economies and the UNU/INTECH's project entitled "Monitoring the Impact of New Technologies and Women's Industrial Work in Asia". The latter project produced a book entitled Women Encounter Technology: Changing Patterns of Employment in the Third World, which was launched at the Beijing Conference. The Rector addressed the plenary of the Conference and researchers from UNU/INTECH and UNU/WIDER attended sessions at the governmental and the NGO sessions of the Conference. In connection with the UNU/INTECH project, it is also noteworthy that the project coordinator has advised the Gender Group of the United Nations Commission on Science and Technology for Development and would write a background paper for the Group.

208. UNU has been making preparations for its contribution to the United Nations Conference on Human Settlements (Habitat II), scheduled to take place in Turkey in June 1996. A Pre-Habitat II Tokyo Conference on World Cities and the Urban Future was organized at UNU headquarters in Tokyo in August with co-sponsors including the Japan Habitat Society and the Tokyo Metropolitan Government. The conference analysed the impact of the increasing trend of globalization on mega-cities and major metropolitan centres, in particular in the developing world. It was followed immediately by a UNU/WIDER Conference on Human Settlements in Changing Global Economic and Political Processes, held at Helsinki. UNU/WIDER, on the basis of the preliminary work in this area, produced a report entitled "Habitat II and the Urban Economy" in its "Research for Action" series.

209. Links have also been established between UNU/INTECH and the United Nations Commission on Science and Technology for Development. The Deputy Director of UNU/INTECH has been nominated as Chair of the Commission's Gender Advisory Group for the period 1995-1996 and as a member of the Group until 1999. In 1995, the Commission held one of its meetings in Maastricht, the Netherlands, and participated in a seminar on information technology led by the UNU/INTECH research staff.

210. The UNU Office in North America (UNUONA) extended its outreach activities to enhance awareness and knowledge of the University's substantive activities and their outcomes. These efforts included targeted information distribution to permanent missions and United Nations officials at the senior and working levels. UNUONA also initiated a series of public forums during the year in an effort to disseminate the results of UNU policy research. These forums covered such topics as United Nations reform, political and economic aspects of global employment and the prospects for establishing a rigorous definition and set of measures for the bio-geophysical foundations of sustainability. UNUONA has also strengthened cooperation with the Department of Public Information of the United Nations Secretariat which has been helpful in raising the visibility of the University in New York.

211. Other events have included the launching of UNU books and co-published journals, such as Global Governance and Le Trimestre du Monde. One highlight of the year was the formal launching of the UNU International Leadership Academy at a ceremony held at United Nations Headquarters in the presence of the Secretary-General, Dr. Boutros Boutros-Ghali, and Queen Noor of Jordan.

VI. THE STATE OF THE UNIVERSITY - 1995

212. The year 1995 marked the twentieth anniversary of the United Nations University and coincided with the commemoration of the fiftieth anniversary of the United Nations. The University dedicated a number of its public events to the observance of the completion of its first two decades. Notable among them was a symposium held during the forty-second session of the Governing Council on 4 December 1995 entitled "The Future of Hope: Lessons from the Past". The symposium brought together a number of Nobel laureates from many fields for discussions on the progress of events in the 50 years since the Second World War and sought to draw lessons and examples which could help UNU in confronting the problems of the twenty-first century. The event was organized in collaboration with the newspaper Asahi Shimbun and the cooperation of the Elie Wiesel Foundation for Humanity.

213. In reflecting on its first 20 years of academic activity, the University completed the final year of work covered by its second Medium-Term Perspective (MTP II - 1990-1995). During the year, the University prepared the framework which will guide its academic development into the next century. The University Centre, together with the research and training centres and programmes, formulated the first draft of the University's third Medium-Term Perspective (MTP III), to cover the period 1996-2001. Parallel to this exercise, the University prepared its programme and budget for the biennium for 1996-1997.

214. During 1995, UNU continued its efforts to ensure more effective interaction with other organizations of the United Nations system and to align its academic activities with the primary concerns of the system. The development of MTP III included efforts to make the University's ongoing programmes more coherent and responsive to the research needs of the United Nations. The Rector met with a number of heads of agencies as a means to inform them about the work of the University and to seek their cooperation and advice on how the University's research and dissemination activities could be strengthened to assist the agencies in their own work. Working-level contacts with other United Nations organizations helped to involve those organizations in joint endeavours such as co-sponsored meetings or research initiatives. UNU continued to seek information and to ensure that its activities did not duplicate those being undertaken by other research entities within the system. Additional efforts will be made in 1996 to strengthen dialogue with other parts of the system with a view to achieving a more effective sharing of information and results in areas of common activity.

215. The University carried on its public information and related dissemination activities, which are aimed at heightening interest in and the visibility of the work of the University. These efforts included publicizing its conferences and meetings, bringing attention to its publications through book launchings and public forums and moving into the area of electronic dissemination. The UNU office for North America, for example, held a number of public forums and events to expand knowledge of the work of the University at Headquarters, among permanent missions at Headquarters and among officials of the United Nations Secretariat.

216. The Council of the University held its forty-second session from 4 to 8 December at headquarters in Tokyo. The Bureau, functioning as the steering committee of the Council, had met in early August to review the first draft of MTP III, the draft progress report on the establishment of a new research and training centre in Japan, the Institute of Advanced Studies (UNU/IAS) and the

draft agenda for the forty-second session of the Council. During the session, the Council took note of the Rector's statement and report to the Council as well as the individual reports of UNU at headquarters. It also considered the draft MTP III for 1996-2001 and requested that amendments be made in the document for consideration by the Bureau in July 1996 and at the forty-third session of the Council in December 1996. The Council also adopted the proposed academic programme (see annex I) and the budget (see annex IV) of the University for 1996-1997.

217. The Council also considered progress reports on the UNU International Leadership Academy (UNU/ILA) in Amman and the UNU International Network on Water, Environment and Health (UNU/INWEH), in Ontario, Canada. In considering the reports presented to it, the Council noted the need for a more systematic reporting of the work of the University by the Rector and the Director of UNU research and training centres and programmes which would permit a more critical assessment by the Council of UNU activities in both quantitative and qualitative terms. The Council expressed its concern about the state of UNU/INRA and the lack of staff and financial resources which have hampered progress in implementing its programme activities. The Council also urged the Rector to continue his efforts to harmonize standards and procedures for electronic communication throughout the UNU system.

218. In its discussions the Council also noted the increasing breadth of UNU training and fellowship activities and the differing policies and approaches which were being used within the UNU system. The Council asked the Rector to undertake an assessment of those activities and to develop a strategy to ensure more coherent implementation of training and fellowship activities, including an appropriate geographic balance in their distribution. The Council also requested the Rector to study the publishing activities of UNU with the aim of improving the efficiency and cost-effectiveness of the operations.

219. During the session, the Council also designated members of a Nominating Committee for the UNU Rectorship to begin to prepare a list of candidates for the post of Rector of the University for the consideration of the Secretary-General of the United Nations and the Director-General of UNESCO. The next Rector is expected to begin his/her term in September 1997.

220. An important institutional development during 1995 was the establishment of UNU/IAS. The idea for an RTC in Japan dates back to the inception of the University, when it was included in the original agreement between the United Nations and the Government of Japan which led to the establishment of UNU. For more than 20 years it remained a promise, an idea and a dream, but it was only in 1995 that its establishment became a reality.

221. In July, the necessary legal instruments were signed to permit the hand-over of the premises of the Institute to the University by the Tokyo Metropolitan Government authorities. Those facilities, amounting to some 6,000 square metres of office space, are being made available free-of-charge by the Government and the people of Tokyo. The Tokyo Metropolitan Government has also made available the basic furnishings and equipment for the Institute and has agreed to cover a portion of the maintenance costs. The ministries of Foreign Affairs and of Education, Science and Culture of Japan have generously agreed to provide support for the academic activities of the Institute. The preparatory work for the setting up of UNU/IAS occupied a number of headquarters staff during the year. These efforts ranged from installation of the necessary furnishings and equipment to preparation of the necessary legal instruments for establishing the Institute to the planning of the initial academic programme of

UNU/IAS. University staff worked closely with officials of the Government of Japan and of the Tokyo Metropolitan Government to ensure the necessary financial resources for establishing the Institute and for the initiation of activities as soon as the Institute was established by the UNU Council. The UNU Council adopted the UNU/IAS statute at its forty-second session in early December, thereby formally establishing the Institute.

222. A number of start-up activities were carried out in 1995 in preparation for initiation of academic activities in 1996. These activities have already been described in previous sections of the present report. The Governing Council decided in its previous deliberations that the Institute should have a flexible multi-thematic programme and that it should build up strong linkages with the academic community in Japan. The University organized a number of consultative meetings in the past to assist in the process of formulating the UNU/IAS programme of work. Based on these consultations, the Council decided that an entry point for the initial activities would be global governance and multilateral cooperation within the framework of the United Nations. In addition, activities related to environmentally sustainable development, mega-cities and urban development and science and technology are likely to form the basis of the Institute's first academic programme. Efforts were under way in late 1995 to search for the first Director of the Institute and to recruit the first in-house and visiting researchers for UNU/IAS. Additionally, the basic administrative and support staff were being identified at the time of the preparation of the present report.

223. The Board of UNU/INTECH met at its sixth session from 14 to 16 June 1995 and reviewed the ongoing work of the Institute. It also discussed preparations undertaken by the Rector for an evaluation of UNU/INTECH at the completion of its first five years later in 1995. The Board of UNU/WIDER met at its eleventh session on 19 and 20 June 1995 and reviewed the work of the Institute since the tenth session held the year before. The 1994-1995 biennium was a period of transition for UNU/WIDER in terms of the structure and priorities of its work programme as well as its interaction with the academic community in Finland. The year 1995 also saw the selection of a new Director for the Institute, who was to take office at the beginning of 1996. The Board of UNU/IIST met at its fourth session from 17 to 19 May 1995. It reviewed the progress of the Institute in the implementation of its software development activities and reviewed the planned programme of work for the next biennium. The Rector appointed members of the first Board of UNU/INRA to replace an advisory committee which had been in place during the initial phase of the UNU/INRA programme. The Board was expected to hold its first meeting in early 1996.

224. The Rector convened two meetings of the Conference of Directors of UNU research and training centres and programmes. The first, held on 22 and 23 March 1995, was devoted to a discussion of ways of strengthening the role of the Conference, enhancing coherence and intra-university academic cooperation and the development of MTP III for 1996-2001. The Conference also reviewed the framework for preparing the budget for the biennium 1996-1997 as well as administrative matters such as a university-wide staffing policy and progress made in the area of computerization and communications. A second Conference of Directors was held on 1 December and focused on preparations for the forty-second session of the Governing Council.

225. During the year, the Rector led delegations to two major United Nations conferences: the World Summit for Social Development held at Copenhagen in March, and the Fourth World Conference on Women held at Beijing in September. UNU/WIDER served as the focal point for UNU input into the World Social Summit.

The Institute used the occasion to launch the first of two volumes emanating from its work on global employment. A copy of the volume entitled Global Employment: An International Investigation into the Future of Work was given to each national delegation attending the Summit and the title was officially launched at a ceremony attended by Martti Ahtisaari, President of Finland, Arped Göncz, President of Hungary, Percival Patterson, Prime Minister of Jamaica, and Paulo Renato Costa Souza, Minister of Education of Brazil.

226. UNU/INTECH and UNU/WIDER jointly served as the focal point for the UNU with regard to the preparatory work for the Fourth World Conference on Women. Researchers from both RTCs participated in sessions and events of the governmental and NGO forums. UNU/INTECH used the occasion of the Beijing Conference to launch its volume entitled Women Encounter Technology: Changing Patterns of Employment in the Third World.

227. The Rector addressed the plenary sessions in Copenhagen and Beijing and described in his statements the work of the University related to each Conference. The University also used the occasion of the conferences to publicize its work in the form of summaries of its activities related to social development and to gender and development issues. UNU Press also availed itself of these opportunities to draw attention to the dissemination activities of the University in these key areas with displays of UNU titles at both Copenhagen and Beijing.

228. Another major institutional development during the year was the progress made in the setting up of the UNU International Leadership Academy (UNU/ILA) in Amman. The UNU Council had formally established the Academy as a programme of the University at its forty-first session in December 1994. In April, the Rector and the Minister of Higher Education of Jordan signed the necessary legal instrument to enable the UNU/ILA offices to be established within the University of Jordan campus in Amman. The Rector appointed an Advisory Committee for the Academy comprising Queen Noor of Jordan (Chairperson), Hisashi Owada, Permanent Representative of Japan to the United Nations, (Vice-Chairperson), Jan Egeland, Secretary of State, Royal Norwegian Ministry of Foreign Affairs, and Bartolomé Mitre, Editor, La Nación, Argentina. The Rector also appointed Andrés Pastrana, a former mayor of Bogotá, as the first Director of UNU/ILA. Mr. Pastrana was unable to continue in his post for personal reasons and resigned in September. The Rector expected to appoint a new director for the Academy in early 1996.

229. On the occasion of the fiftieth anniversary of the United Nations, King Hussein of Jordan, in his address at the Special Commemorative Meeting of the General Assembly on 22 October 1995, referred to the establishment of UNU/ILA in Amman. He stated that "this academy will be the first of its kind in the world. It will be the first branch of the United Nations University in the Middle East", which will work to build bridges of human contacts among future leaders. It will give them the opportunity for dialogue and exchange between them and their diverse cultures. It will prepare programmes and courses that enrol leaders in the political, social, economic, religious, and cultural sectors from all over the world, to foster dialogue, understanding, and cooperation between peoples and civilizations.

230. Following extensive consultations with officials of the Government of Canada and of the Province of Ontario, UNU made some progress during the year towards the initiation of activities of the International Network on Water, Environment and Health (UNU/INWEH). The proposal for the establishment of the Network had received the endorsement of the UNU Council at its forty-first

session in December 1994. Discussions during the year were aimed at mobilizing the necessary matching funding from both the central Government and from the province. In September, the provincial authorities informed the Rector that owing to severe budget cuts they would be unable to honour the pledge of the previous Government. The University had however earlier received a firm commitment from the Government of Canada to contribute Can$ 5.25 million over four years for the Network with the understanding that there would be no additional federal core funding beyond that amount. The Government indicated its expectation that UNU/INWEH would become self-sufficient at the end of the initial four-year period. The University continued the necessary preparatory work for setting up UNU/INWEH in early 1996 based on the assurances of support from the Government of Canada.

231. As of 31 December 1995, pledges to the Endowment Fund and operating contributions made by 54 Governments and 7 other benefactors totalled some US$ 289.2 million, of which $268.8 million had been received. The University also benefited during the year from counterpart and other support, including cost-sharing support for the fellowships and other activities. Contributions based on new and existing pledges for UNU research and training centres and programmes and modest operational contributions were received during the year. Table 2 provides a summary of the contributions of $100,000 or more received during 1995.

Table 2: Financial contributions received during 1995 (over US$ 100,000)

Source	Purpose	Amount ($)
Government		
Austria	Endowment Fund	144 329
China	Endowment Fund for UNU/IIST	1 000 000
Italy: Regional Authority of Sardinia	Earmarked for programme on marine science and ocean affairs	136 036
Japan	Operating contributions from Ministry of Foreign Affairs, including $500,000 for UNU Agenda 21 activities	3 700 000
	Contribution from Ministry of Education, earmarked for Japan-UNU cooperative study programme	1 222 071
	Operating contribution from Ministry of Foreign Affairs for fiscal year 1995, including $1,000,000 for UNU/IAS	4 700 000
	Operating contribution from Ministry of Education for fiscal year 1995, including yen 100,000,000 (earmarked for UNU/IAS)	2 187 970
Jordan	For UNU/ILA	713 080

Source	Purpose	Amount ($)
Macau	Endowment fund earmarked for UNU/IIST	3 000 000
Netherlands	1995 operational costs of UNU/INTECH	884 347
Subtotal		17 687 833
Non-governmental agencies and private sector		
United Nations	Government of Japan Trust Fund for International Symposium on the United Nations Peace-keeping Operations	300 000
	Government of Japan Trust Fund for activities related to the work of the Commission on Global Governance	482 400
UNFPA	Collaborative studies on population, land management and environmental change	240 000
EEC	UNU/INTECH project on international dimensions of the impact of new technologies	122 352
Asia-Pacific Centre (Japan)	Project on views of the environment in Asian countries: their relationship to sustainable development	127 625
Ebara Corporation (Japan)	UNU Zero Emissions Research Initiative	194 286
Kirin Brewery Co. (Japan)	UNU-Kirin Fellowship Programme	353 208
Nippon Foundation	Mega-cities and urban development	449 438
Shimadzu Corporation (Japan)	Environmental monitoring and analysis in the East Asia region: technology transfer and environmental governance	356 765
Subtotal		2 626 074
TOTAL		20 313 907

232. The University held numerous conferences, workshops and seminars in different parts of the world during 1995. The Conference facilities at UNU headquarters in Tokyo were in nearly constant use by the University and a number of outside organizations. More than 8,500 persons attended academic events held at headquarters during the year. In total, more than 100 academic events were held at the UNU headquarters and at UNU research and training centres and programmes or at other locations under their auspices. A number of these events attracted wide media attention, notable among them was the first World Congress on Zero Emissions, held at UNU headquarters on 6 and 7 April 1995. The Congress

was the first multi-point video conference on Internet held in Japan; there were live presentations via Internet by Ingvar Carlsson, Prime Minister of Sweden, and Federico Mayor, Director-General of UNESCO. UNU was able to link up sites in Asia, Europe and the United States, involving scholars, policy makers and politicians in the conduct of the Congress. Other major conferences such as the Symposium on New Dimensions of United Nations Peace-Keeping Operations, held in mid-January, and the Symposium on the Future of Hope: Lessons from the Past, held on 4 December, served to increase awareness of the diverse academic activities of the University.

233. In 1995, Dr. Lucien F. Michaud, S.J., of the University of Sudbury, Ontario, Canada, became the Chairman of the Council of UNU following his election at the forty-first session of the Council in Accra in December 1994.

234. The Secretary-General of the United Nations and the Director-General of UNESCO announced the appointment of 10 new members and one reappointed member of the UNU Council early in the year. These new members included José Brunner Ried, a sociologist and Minister of the Secretary-General of the Government of Chile; Paolo Costa, Rector and Professor of Regional Economics, University Ca' Toscari of Venice, Italy; Donald Ekong, Professor and Secretary-General of the Association of African Universities; Salim El-Hoss of the American University of Beirut and a former Prime Minister and Minister of Education of Lebanon; Genady Golubev, Professor and Head of the Department of World Physical Geography and Geo-ecology, Faculty of Geography, Moscow State University, and a former Assistant Secretary-General of the United Nations and Assistant Executive Director of UNEP; Françoise Héritier-Augé, Professor and Director, Laboratoire d'anthropologie sociale, Ecole des hautes études en sciences sociales, Collège de France; Risto Ihamuotila, Rector and Professor of Agricultural Policy of the University of Helsinki; Graça Machel, President of the Foundation for Community Development and Chairperson of the National Organization of Children of Mozambique, and a former Minister of Education and Culture of Mozambique; Valeria Merino-Dirani, environmental law specialist from Ecuador and Executive Director of the Corporación Latinoamericana para el Desarrollo; Ingrid Moses, Deputy Vice-Chancellor (Academic) of the University of Canberra, who was Professor of Higher Education and Foundation Director of the Centre for Learning and Teaching at the University of Technology in Sydney, Australia; and Wang Shaoqi, Director-General, Department of International Cooperation, State Science and Technology Commission, China. Each of these members will serve in his/her individual capacity for a six-year term ending on 2 May 2001 (see annex II for list of members of the University Council).

235. Professor Takashi Inoguchi, Professor of Political Science at the University of Tokyo, assumed the post of Senior Vice-Rector of UNU in April following a lengthy search process. Dr. George Vassiliou, former President of Cyprus, was appointed a member of the Board of UNU/WIDER.
Dr. Hebe Maria Cristina Vessuri of the Instituto Venezolano de Investigaciones Científicas in Venezuela, was appointed to the Board of UNU/INTECH and Professor Wil Albeda of the Netherlands was reappointed to the Board of UNU/INTECH. Professor Zhou Li-Gao, Vice-Rector of the University of Macau, was appointed a member of the Board of UNU/IIST. Professors Ivan M. Havel of the Czech Republic, Gilles Kahn of France and Kesav V. Nori of India were all reappointed to a second term on the Board of UNU/IIST.
Professor W. S. Alhassan, Director-General, Council for Scientific and Industrial Research, Ghana; Dr. Björn Lundren, Director, International Foundation for Science, Stockholm; Professor Thomas R. Odhiambo, Director, Research and Development Forum for Science-led Development in Africa, Nairobi; Dr. Guy Paillotin, President, Institut National de la Recherche Agronomique, Paris; and Dr. S. I. Rasool, Director, International Geosphere-Biosphere

Programme - Data and Information System, Paris, were appointed to the Board of UNU/INRA.

Notes

1/ K. Krause and W. A. Knight (eds.), State, Society and the United Nations System: Changing Perspectives on Multilateralism (UNU Press, 1995); and C. F. Alger, G. M. Lyons and J. E. Trent (eds.), The United Nations System: The Policies of Member States (UNU Press, 1995).

2/ G. K. Helleiner (ed.), Manufacturing for Export in the Developing World: Problems and Possibilities (Routledge, 1995).

3/ M. Simai with V. Moghadam and A. Kuddo (eds.), Global Employment: An International Investigation in the Future of Work (UNU Press with ZED Books, 1995).

4/ S. Mitter, Women Encounter Technology: Changing Patterns of Employment in the Third World (Routledge/UNU Press, 1995).

5/ F. Capra and G. Pauli (eds.), Steering Business Towards Sustainability (UNU Press, 1995).

6/ A. T. Wolf, Hydropolitics along the Jordan River: Scarce Water and Its Impact on the Arab-Israeli Conflict (UNU Press, 1995), and M. Murakami, Managing Water for Peace in the Middle East: Alternative Strategies (UNU Press, 1995).

7/ Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I: Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution I, annex II.

8/ J. X. Kasperson, R. E. Kasperson and B. L. Turner II (eds.), Regions at Risk: Comparisons of Threatened Environments (UNU Press, 1995); Nigel J. H. Smith, Emanuel Adilson S. Serrão, P. T. Alvim and I. C. Falesi, Amazonia: Resiliency and Dynamism of the Land and Its People (UNU Press, 1995); and H. Brookfield, L. Potter and Y. Bryron, In Place of the Forest: Environmental and Socio-economic Transformation in Borneo and the Eastern Malay Peninsula (UNU Press, 1995).

9/ T. Nishizawa and J. I. Uitto (eds.), The Fragile Tropics of Latin America: Sustainable Management of Changing Environments (UNU Press, 1995).

ANNEX I

United Nations University Academic Programme for 1996/97

Programme area	Responsible unit: Existing	Responsible unit: Prospective
Universal human values and global responsibilities		
1. The United Nations system, global governance and security	UNU Centre	UNU/IAS
2. Conflict resolution and ethnicity	UNU Centre, INCORE	
3. Governance, state and society	UNU Centre, UNU/WIDER, UNU/ILA	UNU/CESG
4. Culture and development	UNU Centre	
New directions for the world economy		
5. Eco-restructuring for sustainable development	UNU/WIDER, UNU Centre	
6. Socio-economic dimensions of development	UNU/WIDER, UNU/INTECH	
7. Global change and perspective	UNU Centre, UNU/WIDER	
Sustaining global life-support systems		
8. Eco-restructuring for sustainable development	UNU Centre, UNU/WIDER, UNU/INTECH	UNU/IAS
9. Integrated studies of ecosystems	UNU Centre, UNU/WIDER	
10. Information systems for environmental management	UNU Centre	UNU/INWEH
11. Natural resources in Africa	UNU/INRA	
12. Environmental law and governance	UNU Centre	UNU/CESG
Advances in science and technology		
13. Socio-economic implications of new technologies	UNU/INTECH	
14. Applications of biotechnology for development	UNU/BIOLAC	
15. Software technology for developing countries	UNU/IIST	
16. Microprocessors and informatics	UNU Centre	
Population dynamics and human welfare		
17. Population, urbanization and development	UNU Centre, UNU/WIDER	UNU/IAS
18. Population, land management and environmental change (PLEC)	UNU Centre, UNU/INRA	
19. Food and nutrition for human and social development	UNU Centre	UNU/FNCC

UNU Centre: Academic Division, UNU Centre (Tokyo)
UNU/BIOLAC: Programme on Biotechnology for Latin America and the Caribbean (Caracas)
UNU/INCORE: Joint International Programme on Conflict Resolution and Ethnicity (Ulster, Northern Ireland)
UNU/INRA: Institute for Natural Resources in Africa (Accra, with a mineral resources unit in Zambia)
UNU/IIST: International Institute for Software Technology (Macau)
UNU/INTECH: Institute for New Technologies (Maastricht, The Netherlands)
UNU/WIDER: World Institute for Development Economics Research (Helsinki)
UNU/ILA: International Leadership Academy (Amman)
UNU/CESG: Centre for the Study of Governance (Barcelona, Spain)
UNU/IAS: Institute of Advanced Studies (Tokyo)
UNU/INWEH: International Network on Water, Environment and Health (joint international programme with Ontario, Canada) (Ontario, Canada)
UNU/FNCC: Food and Nutrition Research and Training Coordinating Centre at Cornell University (United States)

ANNEX II

Members of the Council of the United Nations University in 1995

Appointed members

Dr. Lucien F. MICHAUD, S.J. (Canada) (Chairman of the Council), Professor, University of Sudbury, Canada

Professor José Joaquin BRUNNER Ried (Chile), Minister, Ministry of the Secretary-General, Government of Chile

Professor Paolo COSTA (Italy), Rector and Professor of Regional Economics, University Ca' Foscari, Venice, Italy

Mr. Vladimir DLOUHY (Czech Republic), Minister, Ministry of Industry and Trade, Czech Republic

Dr. Donald EKONG (Nigeria), Professor and Secretary-General, Association of African Universities, Accra, Ghana

Dr. Salim EL-HOSS (Lebanon), American University of Beirut, and former Prime Minister of Lebanon

Professor J. A. van GINKEL (Netherlands), Rector Magnificus and Professor of Human Geography, Utrecht University

Professor Genady Nikolaevich GOLUBEV (Russian Federation), Head, Department of World Physical Geography and Geo-ecology, Faculty of Geography, Moscow State University

Professor Françoise HÉRITIER-AUGÉ (France), Director, Laboratoire d'anthropologie sociale, Étude des Hautes Etudes en Science Sociales, Collège de France

Professor Risto IHAMUOTILA (Finland), Rector and Professor of Agricultural Policy, University of Helsinki

Ambassador Hideo KAGAMI (Japan), former Permanent Representative of Japan to the United Nations

Professor Hanaa KHEIR-EL-DIN (Egypt), Professor of Economics and Chairperson of Economics Department, Faculty of Economics and Political Science, Cairo University

Professor Sang Soo LEE (Republic of Korea), Professor Emeritus, Korea Advanced Institute of Science and Technology

Professor Madina LY-TALL, Ambassador Extraordinary and Plenipotentiary of Mali to France, Paris

Dr. Edson MACHADO DE SOUSA (Brazil), Head, Cabinet of the Minister of Education, Ministry of Education and Sports, Government of Brazil

Ms. Graça MACHEL (Mozambique), President, Foundation for Community Development, Mozambique

Ms. Valeria MERINO-DIRANI (Ecuador), Executive Director, Corporación Latinoamericana para el Desarrollo, Ecuador

Dr. A. P. MITRA (India), President, National Academy of Sciences; Bhatnagar Fellow (Council of Scientific and Industrial Research); National Physical Laboratory, India

Professor Ingrid MOSES (Australia), Deputy Vice-Chancellor (Academic), University of Canberra

Professor Jacob L. NGU (Cameroon), Director, Immunology and Biotechnology Laboratories, Cameroon

Dr. Luis Manuel PEÑALVER (Venezuela), President, National Council for Education, Venezuela

Dr. Victor RABINOWITCH (United States of America), Senior Vice-President, MacArthur Foundation, United States

Professor Frances STEWART (United Kingdom of Great Britain and Northern Ireland), Senior Research Officer and Fellow, Institute of Commonwealth Studies, International Development Centre, Queen Elizabeth House, University of Oxford

Dr. WANG Shaoqi (China), Director-General, International Cooperation Department, State Science and Technology Commission, China

Rector

Professor Heitor GURGULINO DE SOUZA (Brazil)

Ex-officio members

Dr. Boutros BOUTROS-GHALI (Egypt), Secretary-General of the United Nations

Dr. Federico MAYOR (Spain), Director-General, United Nations Educational, Scientific and Cultural Organization, Paris

Dr. Marcel BOISARD (Switzerland), Acting Executive Director, United Nations Institute for Training and Research, Geneva

ANNEX III

Titles published in 1995

Books

Amazonia: Resiliency and Dynamism of the Land and Its People
By Nigel J. H. Smith, Emanuel Adilson S. Serrao, Paulo T. Alvim and Italo C. Falesi, UNU Press

Arms Reduction: Economic Implications in the Post-Cold War Era
Edited by Lawrence R. Klein, Fu-Chen Lo and Warwick J. McKibbin, UNU Press

Capital, the State and Labour: A Global Perspective
Edited by Juliet Schor and Jong-Il You, UNU/WIDER, with Edward Elgar, United Kingdom

Esunikku mondai to kokusai shakai: Funsou, kaihatsu, jinken
[Japanese edition of The Ethnic Question: Conflicts, Development and Human Right]
By Rodolfo Stavenhagen, UNU Press, with Ochanomizu Shobo, Japan

The Evolving New Global Environment for the Development Process
Edited by Mihály Simai, UNU Press

The Fragile Tropics of Latin America: Sustainable Management of Changing Environments
Edited by Toshie Nishizawa and Juha I. Uitto, UNU Press

El futuro ecológico de un continente: una visión prospectiva de la América Latina, vols. I and II
Compiled by Gilberto C. Gallopín, Isabel A. Gómez, A. A. Pérez and Manuel Winograd, UNU Press, with Fondo de Cultura Económica, Mexico

Gender and Development in the Arab World - Women's Economic Participation: Patterns and Policies
Edited by Nabil F. Khoury and Valentine M. Moghadam, UNU/WIDER, with Zed Books, United Kingdom

Global Employment: An International Investigation into the Future of Work, vols. I and II
Edited by M. Simai, V. Moghadam and A. Kuddo, UNU/WIDER, with Zed Books

Hydropolitics along the Jordan River: Scarce Water and Its Impact on the Arab-Israel Conflict
By Aaron T. Wolf, UNU Press

In Place of the Forest: Environmental and Socio-economic Transformation in Borneo and the Eastern Malay Peninsula
By Harold Brookfield, Lesley Potter and Yvonne Byron, UNU Press

Managing Water for Peace in the Middle East: Alternative Strategies
By Masahiro Murakami, UNU Press

Manufacturing for Export in the Developing World: Problems and Possibilities
Edited by G. K. Helleiner, Routledge

Marijuana in the "Third World": Appalachia, U.S.A.
[vol. 5 of "Studies on the Impact of the Illegal Drug Trade"]
By Richard Clayton, UNU Press, with Lynne Rienner Publishers, Inc., United States of America

Mexico's "War" on Drugs: Causes and Consequences
[vol. 3 of "Studies on the Impact of the Illegal Drug Trade"]
By María Celia Toro, UNU Press, with Lynne Rienner Publishers, Inc., Boulder and London

Modelling Global Change
Edited by Lawrence R. Klein and Fu-chen Lo, UNU Press

The North, the South and the Environment: Ecological Constraints and the Global Economy
Edited by Andrew Glyn and V. Bhaskar, UNU Press, with Earthscan Publications

Las Nuevas Tecnologías y el Futuro de América Latina: Riesgo y Oportunidad
Edited by Amílcar Herrera, Leonel Corona, Renato Dagnino et al., UNU Press, with Siglo Veintiuno Editores, Mexico

The Political Economy of Hunger: Selected Essays (UNU/WIDER Studies in Development Economics)
Edited by Jean Drèze, Amartya Sen and Athar Hussain, Clarendon Press, Oxford

Regions at Risk: Comparisons of Threatened Environments
Edited by Jeanne X. Kasperson, Roger E. Kasperson and B. L. Truner II, UNU Press

State, Society and the UN System: Changing Perspectives on Multilateralism
Edited by K. Krause and W. A. Knight, UNU Press

Steering Business Toward Sustainability
Edited by Fritjof Capra and Gunter Pauli, UNU Press

Strengthening the Family: Implications for International Development
By Marian F. Zeitlin, Ratna Megawangi, Ellen M. Kramer, Nancy D. Colleta, E. D. Babatunde and David Garman, UNU Press

Sustainable Management of Soil Resources in the Humid Tropics
By Rattan Lal, UNU Press

Unintended Consequences: Illegal Drugs and Drug Policies in Nine Countries
[vol. 4 of "Studies on the Impact of Illegal Drug Trade"]
By LaMond Tullis, UNU Press, with Lynne Rienner Publishers, Inc., United States

The United Nations System: The Policies of Member States
Edited by Chadwick F. Alger, Gene M. Lyons and John E. Trent, UNU Press

A Vision of Hope/Asu eno tenbo (English and Japanese version)
UNU Press, with Regency Corporation, Ltd., United Kingdom

Women, Culture and Development: A Study of Human Capabilities
(UNU/WIDER Studies in Development Economics)
Edited by Martha C. Nussbaum and Jonathan Glover, Clarendon Press, Oxford

Women Encounter Technology: Changing Patterns of Employment in the Third World
By Swasti Mitter and Sheila Rowbothan, UNU/INTECH, with Routledge, United Kingdom

Journals

Abstracts of Selected Energy Technology (ASSET), vol. 16, Nos. 2-3; vol. 17, Nos. 1-3
Tata Energy Research Institute (TERI), India

Food and Nutrition Bulletin, vol. 16, Nos. 1-3
UNU Press

Global Environmental Change: Human and Policy Dimensions, vol. 5, Nos. 1-3
Butterworth-Heinemann, United Kingdom

Global Governance: A Review of Multilateralism and International Organizations, vol. 1, Nos. 1-3
Lynne Rienner Publishers, Inc., United States

Journal of Food Composition and Analysis, vol. 8, Nos. 1-3
Academic Press, United States

Mountain Research and Development, vol. 14, Nos. 1-4; vol. 15, Nos. 1-3
University of California Press, United States, for UNU and International Mountain Society, United States

ANNEX IV

Decision of the Council of the United Nations University on the programme and budget for the biennium 1996-1997

The Council of the United Nations University, at its forty-second session, held at Tokyo from 4 to 8 December 1995,

Approved Part II (Academic programme) of the Academic Programme and Budget of the United Nations University for the biennium 1996-1997 (UNU/C/42/L.5), as proposed by the Rector, taking into account the comments of the Council;

Adopted Part I (Budget) of the Academic Programme and Budget of the United Nations University for the biennium 1996-1997 (UNU/C/42/L.5), as proposed by the Rector, on the recommendations of the Council's Committee on Finance and Budget, as reviewed and amended by the Council, after having considered the report of the Advisory Committee on Administrative and Budgetary Questions of the United Nations Secretariat (UNU/C/42/L.5/Add.1), as follows:

Projected income for the biennium 1996-1997

(Thousands of United States dollars)

	UNU headquarters	UNU/WIDER	UNU/INTECH	UNU/IIST	UNU/INRA	UNU/BIOLAC	UNU/IAS	TOTAL
1. Income from the Endowment Fund								
Income from investment as of 30 June 1995	18 195	5 065	2 182	3 458	372	986	-	30 258
Income from investment of new contributions receivable from 1 July 1995 to 31 December 1997	-	9	-	356	192	25	-	582
2. Operating contributions	14 365	-	1 454	-	200	-	12 110	28 129
3. Contributions for UNU headquarters building	3 110	-	-	-	-	-	-	3 110
4. Sales income and royalties from publications	500	-	-	-	-	-	-	500
5. Unencumbered fund balance	1 500	878	722	-	-	-	500	3 600
Core funds subtotal	37 670	5 952	4 358	3 814	764	1 011	12 610	66 179
6. Specific programme contributions	9 092	130	1 338	540	179	101	400	11 780
Grand total	46 762	6 082	5 696	4 354	943	1 112	13 010	77 959

Estimated expenditures for the biennium 1996-1997

(Thousands of United States dollars)

	UNU head-quarters	UNU/ WIDER	UNU/ INTECH	UNU/ IIST	UNU/ INRA	UNU/ BIOLAC	UNU/ IAS	TOTAL
Personnel costs	21 840	2 728	2 820	1 887	437	0	4 934	34 646
Academic activity costs	14 592	2 411	2 079	1 632	329	1 079	6 495	28 617
General expenses	3 730	793	717	705	165	0	1 581	7 691
Investment management	600	150	80	130	12	33	0	1 005
Subtotal	40 762	6 082	5 696	4 354	943	1 112	13 010	71 959
HQ building	6 000	0	0	0	0	0	0	6 000
Grand total	46 762	6 082	5 696	4 354	943	1 112	13 010	77 959

In connection with its decision to adopt the budget, the Council considered the necessary budget authorizations which might be required by the Rector to ensure the achievement of the objectives and to meet the defined priorities of the University as agreed by the Council. In this regard, the Council:

(a) Authorized the Rector to transfer up to a total of 15 per cent from headquarters' funds to the research and training centres and programmes, also authorized the Rector to transfer up to a total of 15 per cent from any budget line of the headquarters to the other budget lines of the headquarters, with the proviso that any transfer which exceeds this percentage shall require prior approval of the Council, noted that, with respect to the budgets of the research and training centres and programmes, any changes in line items must be approved by the Rector, and requested the Rector to report to the Committee on Finance and Budget on all budget transfers authorized by him;

(b) Further authorized the Rector to accept, allocate and utilize additional funds which may be received by the University during the biennium 1996-1997 for programme activities that have been approved by the Council, and noted that any new programmes and projects to be undertaken by the University which were not included in the approved biennial programme and budget shall be approved by the Council before being implemented;

(c) Stipulated that the Rector shall consult the Council when the University has to make expenditure commitments which would exceed the total approved budget and all such actions shall be approved by the Council in due course, and authorized the Bureau to take actions in this regard, if necessary, at its meeting in July 1996.